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County Borough



of Blackburn.

### EDUCATION COMMITTEE.

# ANNUAL REPORT

FOR THE YEAR 1910.

ALFRED GREENWOOD, M.D., B.Sc., D.P.H.,
Medical Officer of Health and School Medical Officer.

BLACKBURN:

THOMAS BRIGGS (Blackburn) LTD., PRINTERS, &c., 73, NORTHGATE.



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## PUBLIC HEALTH OFFICE, BLACKBURN,

March 7th, 1911.

To the Chairman and Members of the Education Committee of the County Borough of Blackburn.

MR, CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to submit to you my seventh Annual Report upon the work carried out as School Medical Officer for the year ending December 31st, 1910.

As in previous years, the material of this Report has been divided into the following Sections:—

Section I.—School Attendance in Blackburn during 1910.

Section II.—Sanitary Improvements in Blackburn Public Elementary Schools during 1910.

Section III.—Infectious Diseases in the same Schools during 1910.

Section IV.—Medical Inspection of Blackburn School Children during 1910.

Section IV. is exceedingly important and occupies the greater part of the Report. I am indebted to Dr. Linton for much willing and valuable assistance. My chief clerk Mr. Fowler, has also rendered much useful help in the preparation of the tables.

I appreciate fully the confidence which you have always placed in me.

I am, Ladies and Gentlemen,

Your obedient servant,

ALFRED GREENWOOD,

(School Medical Officer).



### SECTION I.

School Attendance in Blackburn during 1910.



## I.—SCHOOL ATTENDANCE IN BLACKBURN DURING 1910.

The following Table shows the accommodation and the average attendance at each School in Blackburn during the year 1910.

TABLE I.

· IADLE I.								
		Average attendance for						
Name of School.	School Ac-	the year 1910.						
1100000	commodat'n.	1	2					
Accrington Road	549	423	413					
Audley Range	617	437	426					
All Saints'	428	272	267					
	567	421						
Bank Top			412					
Cedar Street	580	396	389					
Christ Church	971	671	651					
Emmanuel	<b>620</b>	583	<b>57</b> 0					
Furthergate	590	490	478					
Four Lanes End	181	148	146					
Griffin	759	483	<b>47</b> 0					
Holy Trinity	616	524	512					
Lower Darwen Council	287	161	157					
Maudsley Street	592	404	392					
Moss Street	749	528	516					
Mill Hill Council	859	477	467					
Mill Hill C.E	297	283	278					
Parish Higher Grade	674	484	484					
Public Higher Grade	713	554	554					
Park Road	735	549	534					
Sacred Heart	153	132	131					
St. Alban's	1084	885	869					
" Higher Grade	101	67	. 67					
St. Änne's	956	723	710					
St. Andrew's	339	293	286					
St. Barnabas'	622	520	509					
St. Bartholomew's	358	290	283					
St. Gabriel's	194	189	184					
St. James's C.E	280	159	157					
Black-a-moor	324	110	107					
Guide	300	115	113					
St. John's	935	703	695					
St. Joseph's	771	560	549					
St. Luke's	588	410	401					
St. Mary's	694	526	515					
St. Matthew's	693	428	415					
St. Michael's	591	394	383					
St. Paul's	794	490	479					
St. Peter's C.E	637	327	322					
St. Peter's C.E	493	453	440					
St. Silas's	678	459	454					
St. Stephen's	554	489	479					
St. Thomas's	699	618	604					
Wensley Fold	435	377	370					
Whalley Range	793	462	453					
Witton Infants	207	92	92					
Regent Street Special	80	59	59					
(1) Average on which		noid 10.6	,					

<sup>(1)</sup> Average on which grant was paid ... 18,618. (2) Actual average attendance ... ... 18,242.

The following Table shows the average school attendance, with the cause of fall in average attendance; and also the number of infected houses reported by the Medical Officer of Health to the Education Department for the year 1910. The last column only includes those diseases which are compulsorily notifiable under the Infectious Diseases Notification Act, and does not refer to such diseases as Measles, Whooping Cough, Mumps, etc., which are voluntarily notifiable diseases.

### TABLE II.—1910.

Month.	Average Attendance	Cause of Fall in Average Attendance.	No of Houses reported from the Health Department as containing notifiable diseases	
January	17907	Exceptionally heavy snow- storm, causing breakdown in attendance for several days.	58	
February	18256	Several Infant Schools affected with Measles, Chickenpox, etc.	41	
March	18512	Measles, etc. 1 Infant School closed.	66	
April	18560	Measles affected several Schools	58	
May	18283	Measles. Four Infant Schools closed.	68	
June	18388	Measles.	78	
July	18149	Measles.	88	
August	Holidays.	Holidays	66	
September	18816		63	
October	18519	Measles.	62	
November	17911	Measles, Mumps, Whooping Cough, and Scarlet Fever.	117	
December	17689	Measles, etc.	107	

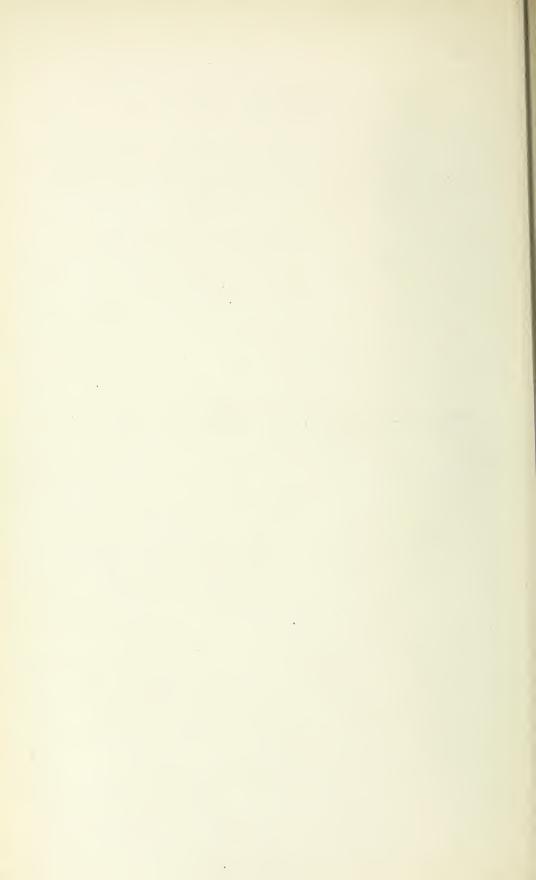
The next Table indicates the Schools in Blackburn which have been closed during 1910 by the Medical Officer, the cause and period of such closure, and the normal average attendance of all departments, together with the lowest average attendance before closure.

TABLE III.-1910.

School.	Epi- demic.	Date when Closed.	Period School Closed.	of all De-	Lowest Average Attendance previous to Closing.
St. Joseph's Infants Accrington Road Council Infants St. Thomas's Infants St. Matthew's Infants St. Silas's Infants	Measles	Mar. 2 May 5 ,, 5 ,, 27 ,, 27	WEEKS 4  1 1 3½ 3½ 3½	555 438 629 429 470	522 399 576 391 431

### SECTION II.

Sanitary Improvements in Blackburn Schools during 1910.



## II.—SANITARY IMPROVEMENTS IN BLACKBURN SCHOOLS DURING 1910.

All the Schools have been inspected in order to ascertain the sanitary improvements which have been carried out during the year.

The following is a brief description of the work which has been carried out at those Schools where sanitary improvements have been made during 1910.

At the Schools not mentioned specially, either all my previous recommendations have been carried out, or no sanitary improvements have been effected during the year under review.

The Schools will be indicated by the same numbers which have been used in my former Reports.

Several classrooms named in this section are described by certain numbers. These refer to the correspondingly numbered classrooms on the plans of the various schools which appeared in my detailed report upon the sanitary conditions of Blackburn Schools, and which was written in 1904.

The following is a list of the Public Elementary Schools of the Borough:—

1.—St. Gabriel's.

2.—Four Lanes End.

3.—Cedar Street.

4.—St. James's, Shear Brow.

5.—Whalley Range (Council).

6.—St. Stephen's.

7.—St. Michael's.

9.—Moss Street.

10.—Sacred Heart.

11.—St. John's.

12.—Regent Street Special

School.

13.—St. Silas's.

14.—Public Higher Grade,
Montague Street.

15.—Public Higher Grade,

St. George's,

New Park Street.

16.—St. Alban's, Larkhill

(G. and I.)

17.—St. Alban's H. G. (Boys).

18.—Holy Trinity.

19.—St. Paul's.

21.—Furthergate.

22.—St. Barnabas'.

23.—St. Thomas's.

24.—Accrington Road.

26.—St. Anne's.

27.—St. Mary's Higher Grade.

28,-St. Matthew's,

29.—Maudsley Street.

30.—St. Joseph's.

31.—Wensley Fold.

32.—St. Peter's.

34.—Audley Range.

35.—Bank Top.

36.—St. Mary's, Islington.

37.—St. Luke's.

38.—Park Road,

39.—Witton Infants.

40.—Griffin.

41.—All Saints'.

42.—Christ Church, Mosley Street

43.—Christ Church,

Rockcliffe Street.

44.—St. Peter's, Mill Hill.

45.—Emmanuel.

46.—Mill Hill.

47.—Mill Hill.

48.—St. Andrew's.

49.—St. Bartholomew's.

50.—St. James's, Guide.

51.—St. James's, Black-a-Moor.

52.—Lower Darwen (Council).

#### 1.—ST. GABRIEL'S.

The walls and ceilings have been cleansed throughout the school and the walls have been coloured green.

#### 3.—CEDAR STREET.

#### MIXED DEPARTMENT.

During the year additional window ventilation has been provided, consisting of twenty-one hoppers with glass side shields attached. Their distribution is as follows:—

Classroom No. 1.—Two, each opening 2ft. 4in. by 1ft.

Classroom No. 2.—Two, each opening 2ft 4in. by 1ft.

Classroom No. 3.—Three, each opening 2ft. 4in. by 1ft.

Classroom No. 4.—Two, each opening 2ft. 4in. by 1ft.

Classroom No. 5.—Three, each opening 2ft. 4in. by 1ft. Classroom No. 6.—Five, each opening 2ft. 4in. by 1ft.

Girls' Cloakroom.—Two, each opening 2ft. 4in. by 1ft.

Boys' Cloakroom.—Two, each opening 2ft. 4in. by 1ft.

The walls and ceilings have been cleansed throughout the school and the walls coloured green.

#### 4.—ST. JAMES'S, SHEAR BROW.

The walls and ceilings have been cleansed throughout the school and the walls coloured green.

#### 5.—WHALLEY RANGE (COUNCIL).

A new school is now in course of erection on adjoining land in Bangor Street.

#### 6.—ST. STEPHEN'S SCHOOL.

A new cloakroom has been erected for the mixed department at the entrance to classrooms 2 and 3. The building is of stone and has a flat roof which is leaded. There are two entrances into the schoolrooms—one for boys and one for girls. The room measures 30ft. by 8ft. by 7ft.

It is well lighted by two windows fixed at each end of the room, and four roof lights. The total lighting area of this room measures twenty-three square feet, or one-tenth of the floor space.

The artificial lighting is by gas.

The permanent ventilation consists of thirty holes, one inch in diameter, fixed in the lantern portion of the roof, and connected with ventilating tiles. In each window the upper portion has been made to open on the hopper arrangement. There are four of these hoppers.

The room is heated on all sides by two coils of hot water pipes three inches in diameter.

There are 104 double hooks on the walls and 108 on racks in the centre of the room, giving a total number of 212 hooks.

The lavatory, which is entered directly from the schoolyard, is divided from the cloakroom and is lighted by two windows. There are four white enamelled glazed washbasins, the waste pipes of which are not trapped but which discharge over trapped gullies in the schoolyard.

The floor is concreted. The walls are of ordinary brick and coloured pink and green.

#### 9.—MOSS STREET SCHOOL.

The heating of the school, which was formerly very unsatisfactory, has been put on a new system throughout.

The movable partition which separated the senior and junior divisions has been removed and a glazed fixed partition has been substituted.

The gallery in the cooking centre has been abolished, thus allowing more floor space.

#### 10.—SACRED HEART SCHOOL.

One portion of the play-ground has been levelled, and extra gullies provided in order to remedy a former nuisance from accumulations of water.

#### 11.—ST. JOHN'S SCHOOL.

In the infants' department, a movable glazed partition has been erected in room No. 4, 19ft, 6in, from the east end.

Also in room No. 4 a window has been made to open inwards, and which measures 3ft. by 2ft. 3in.

The external walls of the school building have been repaired and pointed.

#### 14.—PUBLIC HIGHER GRADE SCHOOL (Montague Street).

The playground has been levelled and covered with granite chippings.

#### 16.—ST. ALBAN'S SCHOOL, LARKHILL.

The main schoolroom has been divided into three sections by the erection of two immovable glazed partitions.

The dimensions of these sections are:—

No. 1 (South) 29ft. 7in. by 28ft.

No. 2 (Centre) 29ft. 7in. by 27ft. 9in.

No. 3 (North) 29ft. 7in. by 26ft.

#### 17.—ST. ALBAN'S SCHOOL (G. and I.)

GIRLS' DEPARTMENT.

The large schoolroom (No. 6) has been divided into three sections by the erection of two movable glazed partitions. The dimensions of these sections are:—

No. 1 (south-east) 24ft. by 36ft.

No. 2 (centre) 24ft by 36ft.

No. 3 (north-west) 25ft. by 36ft.

#### 18.—HOLY TRINITY SCHOOL.

The infants' school has been abolished, and on the site, a new school of two storeys is in course of erection, which will accommodate both the infants and mixed departments.

#### 29.—MAUDSLEY STREET SCHOOL.

A fan-light, 3ft. by 1ft., made to open on the hopper principle, has been fixed over the second door in Maudsley Street for the purpose of improving the ventilation in the main schoolroom of the mixed department.

#### 34.—AUDLEY RANGE SCHOOL.

The windows in classrooms 4 and 10 have had clear glass substituted for obscure glass.

#### 26.—ST. ANNE'S SCHOOL.

All departments of this school have been re-decorated, the walls being painted a greenish grey and the ceilings white-washed. Repairs have been carried out on the block floors in the different rooms.

#### 27.—ST. MARY'S SCHOOL (Parish Higher Grade).

Considerable alterations have been carried out at this school during the year.

On the ground floor in the girls department, the inside W.C. and old storeroom have been abolished, the inside walls removed, and the space taken to form a corridor, which now runs from the front to the rear of the school. The width of the corridor is 4ft 6in.

Room No. 5 has been enlarged, one wall having been taken down, set back and rebuilt so as to add the space formerly occupied by the old corridor to the room. One portion of this wall for a length of 15 feet is built of wood and glass forming a fixed glazed partition, by means of which the new corridor is lighted and from a door in which the room is entered. This room now measures 24ft by 22ft.

An additional window containing four panes of clear glass, each measuring 1ft. 3in. by 1ft. 5in., and not made to open, has been built in the northern wall in this room.

The passage leading from the dining room into the teachers' room has been built up, the teachers' room now being entered directly from the corridor.

A portion of the cloakroom wall has been removed so as to allow access of light from the cloakroom to the passages leading to it.

The door leading from room No. 2 to the cloakroom has been built up and another door made to open from room No. 2 into an adjoining corridor, from which the cloakroom is entered.

In room No. 10 the roof has been raised to a height of 14ft., and an additional window provided containing eight panes of clear glass, each measuring 5ft. 0in. by 1ft. 9in. Four of these panes are made to open as hopper windows, each having a clear opening of 1ft. 9in. by 1ft. 3in., fitted with clear glass side shields. Two of these hoppers are situated in the lower part of the window and two in the upper part.

The direction of lighting in this room is from the left and in front.

Throughout the school in all departments, the obscure glass has been removed from the windows and clear glass substituted.

The ventilation has been greatly improved and additional hopper window ventilators, all fitted with side shields, have been provided to the different rooms as follows:—

No.	. 1	Room,	8	hopper
,,	2	,,	14	,,
,,	3	,,	4	,,
,,	4	,,	2	,,
,,	8	,,	14	,,
,,	10	,,	6	,,
,,	11	,,	2	,,
,,	12	,,	14	,,
,,	13	,,	2	,,

These hoppers have each a clear opening of 1ft. 9in. by 1ft.5in. and have been fixed alternately, one in the upper part of the window and one in the lower.

In room No. 12 a dormer window has been fixed in the upper portion of the north-western side of the room, containing 16 windows, each measuring 2ft. 0in. by 1ft. 6in. These windows are all made to open in three sections by a swivel arrangement.

In room No. 13, on the southern side of the room a new window of clear glass has been provided, measuring 2ft. 3in. by 1ft. 6in., and made to open outwards.

In room No. 12, 24 new dual desks have been provided.

On the south-western gable end of room No. 12 an iron fire escape communicating with this room by a door measuring 2ft. 3in. wide has been provided.

#### 32.—ST. PETER'S SCHOOL, BYROM STREET.

All departments at this school have been redecorated, the walls being painted a greyish-green colour and the ceilings whitewashed.

#### 35. BANK TOP SCHOOL.

In room No. 1 of the infants' department, the floor has been relaid with tongued and grooved boards.

48 small chairs and 12 small tables have been provided. In No. 3 room, 30 new dual desks have been provided. The roof to the sanitary conveniences has been re-slated.

#### 36.—ST. MARY'S SCHOOL, ISLINGTON.

The walls throughout the school have been washed and the ceilings whitewashed.

In room No. 1 on the first floor a wooden shield has been placed near the door to prevent draughts blowing on to the scholars.

#### 40.—GRIFFIN SCHOOL.

The alteration of the hopper window ventilators throughout the school has been completed.

Windows which formerly opened from the bottom inwards are now made to open from the top outwards.

The walls throughout the school have been washed and the ceilings whitewashed.

#### 41.—ALL SAINTS' SCHOOL.

The lighting has been improved by the substitution of transparent glass in place of frosted glass in the following rooms:—

No. I. Room, 2 panes 6ft. 0in. by 1ft. 6in.

No. VI. Room, 3 panes, 1ft. 4in. by 4ft. 0in. and a circular light 2ft, 6in. in diameter.

## 42.—CHRIST CHURCH SCHOOL (MOSLEY STREET). GIRLS' DEPARTMENT.

At the north-eastern end of No. 4 room (first floor), a fixed glazed partition has been erected, so as to enclose a space 33ft. 0in. by 8ft. 0in. by 16ft. 0in. This space is now used as a cloakroom for the girls' department.

This room is entered from the schoolroom by two doors, one at each end, and is lighted from one end by a window in the external wall, containing 80 small panes of clear glass, the total area of which is nearly 12 square feet. There is also an indirect light from the main room through the windows in the glazed partition.

There are 112 hooks fixed on the walls of the cloakroom and an additional 80 hooks on a rack in the centre of the room.

At the south-western end of the school, and communicating directly with No. 6 room, a fire escape has been erected. It consists of 33 stone steps, each 3ft. wide, protected by an iron railing and handrail 3ft. high, and leading from No. 6 room down to the boys' playground.

#### 44.—ST. PETER'S SCHOOL, MILL HILL.

This school has been redecorated throughout, the walls being painted greyish-green and the ceilings varnished.

#### 45.—EMMANUEL SCHOOL.

The walls throughout the school have been washed and the ceilings whitewashed.

#### 46.—MILL HILL SCHOOL (NEW CHAPEL STREET).

This school has been redecorated throughout, the walls being painted greyish-green and the ceilings whitewashed.

#### 50.—ST. JAMES'S SCHOOL (GUIDE).

The walls throughout the school have been washed and cleansed and the ceilings whitewashed.

#### 51.—ST. JAMES'S SCHOOL (BLACK-A-MOOR).

The passage leading from the main road (Roman Road) has been paved with setts.

The playground has been considerably improved. The surface of the yard abutting on Nos. 2 and 3 rooms has been flagged for a considerable distance. The total area so flagged is now 286 square yards.

#### 52.—LOWER DARWEN SCHOOL.

Considerable extensions have been carried out at this school during the year.

On the south-western side of room No. 1, but separated from that room by a corridor 4ft. 6in. wide, a new cookery and laundry room has been built.

This room measures 35ft, 0in. by 20ft, 0in. by 16ft, 0in.

It is lighted by four windows, three on the northern and one on the southern side, which have a total lighting area of 105 square feet, and another window having an area of 23 square feet which receives its light from the cloakroom. The total lighting area thus provided is between one-fifth and one-sixth of the floor space. The bottom panes in all the windows are of figured glass.

The ventilation consists of:—
2 hopper windows, without side shields, opening 2ft.6in. by 9in.
3 ,, ,, ,, ,, ,, ,, 2ft.3in. by 9in.
3 ,, ,, with ,, ,, 2ft.3in. by 9in.

There is a permanent outlet ventilator in the roof connected with a mechanical extractor.

The floor is formed of tongued and grooved boards, and the walls are wainscotted to a height of 3ft. 9in. with light pitchpine.

At one end of the room a properly equipped cooking range, fitted with back boiler, hot water cylinder, etc., has been provided, by means of which a constant supply of hot water for laundry purposes can be obtained. There is also a gas oven, the flue from which is properly connected to the chimney so as to carry away all fumes.

Two white enamelled stoneware wash basins or sinks have been provided for laundry purposes. These are fitted with hot and cold water supply. The waste pipes are trapped and discharge over gullies outside.

The furniture consists of 11 dual desks and one folding table.

There are three cupboards built in the wall under the windows.

At one corner of the room there is a small pantry, measuring 5ft. Sin. by 3ft. Sin., properly lighted and ventilated and fitted with shelves. This room is used as a storeroom.

The cookery and laundry room is entered from the corridor and from the cloakroom.

The artificial lighting is effected by seven gaslights.

No.1 room has been extended and now measures 48ft. 0in. by 20ft, 4in, by 16ft, 0in.

The new extension is separated from the main room by a movable glazed partition, and measures 20ft. 4in by 20ft. 0in. by 16ft. 0in.

The lighting consists of five windows having a total lighting area of 105 square feet. The artificial light consists of four incandescent gaslights.

The ventilation consists of three hoppers fitted with side shields, opening 2ft. 3in. by 9in., and three hoppers without side shields, opening 2ft. 3in. by 9in.

The floor is of tongued and grooved boards. The walls are wainscotted in light pitch pine to a height of 3ft, 9in, from the floor.

There is an open fireplace in this room provided with a fireguard.

The furniture consists of 33 small chairs and eight small tables.

The room is entered from the corridor and from a door in the glazed partition.

In the older portion of No. 1 room one Sherringham inlet ventilator has been taken out, and two hopper window ventilators, with side shields, opening 2ft. 3in. by 9in. have been provided.

No. 4 room has been extended, the new portion being separated from the old room by a movable glazed partition. This room now measures 23ft. 0in. by 21ft. 0in.

The lighting consists of two windows, having a total lighting area of 138 square feet. The lower panes of these windows are of figured glass.

The ventilation consists of:-

3 hopper windows, with side shields, opening 2ft, 3in, by 9in.

1	,,	"	,,	,,	2ft. 6in. by 9in.
3	,,	,,	,,	,,	2ft. 3in. by 9in.

The floor is made of tongued and grooved boards, and the walls are wainscotted to a height of 3ft. 9in. above the floor. The heating is from four rows of two inch pipes running along one side.

There are two cupboards built into the walls under the windows.

The furniture consists of 18 new dual desks and three older desks.

The room is entered from the corridor and from a door in the glazed partition.

In No. 5 room two additional window hoppers have been provided, one opening 2ft. 3in by 9in., with side shields, and one opening 1ft. 10in. by 9in., without side shields.

The cloakroom No. 3 has been altered considerably, the roof having been raised. The lighting has been rearranged, and an entrance communicating with a porch leading into the yard has been provided.

In order to allow these alterations to be carried out, the playground has been extended. A considerable portion round the school has been flagged.

On many occasions during the year I have made suggestions respecting improvements in lighting, ventilation, sanitary conveniences and drainage at the various schools.

Although a considerable number of improvements are still necessary, the schools are immensely superior from a sanitary point of view, as compared with their condition nine years ago.

I still find it necessary to complain that school floors are not cleansed sufficiently often. Also it is very important that school caretakers should understand and carry out their work thoroughly.

Sets of temperature charts have again been supplied to all the schools for the purpose of recording twice daily the temperature of each classroom. Where such readings have been too high or too low, special note has been taken for future remedial measures.

I have noticed a marked improvement as compared with previous years in the use made by school teachers of the means of ventilation which are available.

Greater appreciation is shown of the fact that a considerable portion of the lives of school children must be spent under conditions where the air will deteriorate progressively, and that polluted air must be replaced continuously by fresh air in order to obviate the evil effects of bad ventilation.

A greater improvement is, however, possible yet, since occasionally one can enter classrooms which are markedly stuffy and close when entering them from the fresh air.

### SECTION III.

Infectious Diseases in Blackburn Schools during 1910.



## III.—INFECTIOUS DISEASES IN BLACKBURN SCHOOLS DURING 1910.

The infectious diseases, Scarlet Fever, Diphtheria and Typhoid Fever are compulsorily notifiable by Medical Practitioners to the Medical Officer of Health.

With respect to Measles, Whooping Cough, Chickenpox and Mumps, which are voluntarily notifiable, reliance must be placed upon the observation and promptitude of teachers in the various Schools.

During 1910, there was a marked decrease in the number of reported cases of Measles, Scarlet Fever, Typhoid Fever, Whooping Cough and Mumps as compared with the year 1909.

There was a marked increase in Chickenpox and a slight increase in Diphtheria during 1910, as compared with the year 1909.

The following particulars indicate the number of cases of the above diseases which were reported as occurring amongst children of the various schools during 1910.

Other particulars respecting these Infectious Diseases affecting the Borough as a whole may be found in my Annual Report to the Health Committee for the year 1910.

#### Measles.

There was a marked diminution in the number of cases of Measles reported from the schools during 1910, namely, 732 cases, compared with 1,470 cases reported during the year 1909.

The majority of these cases were reported during the months of April, May and June. The small number of cases reported during January and September, after the Christmas and Summer Holidays respectively, is noteworthy.

The following Table indicates the number of reported cases of Measles, occurring in each School monthly, during 1910.

TABLE IV.—Measles in Schools during 1910.

				and the second s									
	7.	6.	ı.	1.	N.	ne	>	is	)t.	ندا	· .	3	[a]
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
				-	_		-			-	-	-	
			¥						1				
Accrington Road				6	15				1			2	23
Audley Range			1	1	1	22	27				1	2	53
All Saints'												1	1
Bank Top			2										2
Cedar Street													
Christ Church	• • • •				11	• • • •	• • • •				2		13
Emmanuel	•••	1	1	2	17	17	• • • •		• • • •		1	3	5
Furthergate Four Lanes End		•••		1	1	17	•••	•••	• • • •	1			36
Griffin				2								:::	2
Holy Trinity			1	14	6							:::	20
Lower Darwen C.						1							
Maudsley Street			4	20									24
Moss Street			5	4		1			2	°2	1	1	15
Mill Hill C			1			1			,			1	2
Norfolk Street	•••	•••		• • • •		•••	•••	•••	• • • •	• • •	• • • •	1	1
Parish Hr. Gde.	•••	•••	•••		1	•••		•••		• • • •	• • • •	1	2
Public Hr. G. (B)	• • • •	• • • •		9		1		•••	• • • •	•••			10
Park Road										12	19	1	32
Sacred Heart													
St. Alban's	1		5	18	6					1			31
" H.G.													• • • •
St. Anne's	•••		2						2	42	1	•••	47
St. Andrew's	• • • •	•••	• • • •	1	4	2	1	• • • •		. 1	•••	•••	9
St. Barnabas'	•••	• • • •	•••	6		2	•••	• • • •	•••	•••	•••	•••	8
St. B'rtholom'w's St. Gabriel's	•••	2	•••		• • • •								. 2
St. James's S.B.	•••		1		1	4				1			7
" Ва-М.	•••												•••
" Guide	1					48	8						57
St. John's	•••	•••	1	14	22	4						1	42
St. Joseph's	•••	13	9				7	•••	• • •	•••		10	29
St. Luke's	•••	3	2	•••	5	7	•••	•••	• • •	•••	•••	10	27 35
St. Mary's R.C St. Matthew's	•••	•••	•••	•••	25	2	1	•••	• • •	•••	1	35	29
St. Matthew's St. Michael's	•••	1	5	1	1		1		1	• • • •		•••	9
St. Paul's			2			1				•••		10	13
St. Peter's N		3	5										8
D.C.		• • •		1			1				1	6	9
St. Silas's				18	43	3	1					•••	65
St. Stephen's		1	2	1	6			• • • •	•••	• • •	•••	• • •	10
St. Thomas's	•••	•••	2	25	7	4	4	•••	•••	• • •		•••	35 8
Wensley Fold Whalley Range	•••	•••	•••	•••				•••		• • •	1		
Witton Infants	3	•••	•••				• • • •					•••	3
Regent Street		•••	•••										
Special												1	1
Totals	5	24	50	143	171	122	51		5	60	26	75	732

#### Scarlet Fever.

The total number of cases of this disease reported in the whole Borough during 1910 was 795, compared with 1,013 cases during 1909.

Of the above 795 cases, 491 occurred amongst school children or  $61\!\cdot\!7$  per cent.

Similar percentages for several previous years were as follows:—

Year.	Percentage.
1904	65 • 9
1905	66 · 7
1906	60 · 5
1907	60 · 8
1908	64 · 7
1909	62.9

The greatest number of reported cases in the months occurred during November, owing to outbreaks of the disease amongst certain schools in St. Silas' Ward.

The following Table indicates the number of notified cases of Scarlet Fever occurring in each school, monthly, during 1910.

TABLE V.—Scarlet Fever in Schools during 1910.

					DATE:				-		4/ 10		
	n.	b.	H.	or.	ıy	June	ly l	0.0	pt.	بد	. v	, c	Total
	Jan.	Feb.	Mar.	Apr.	May	Ju	July	Aug.	Sept.	Oct.	Nov.	Dec.	To
		-		1	-	-	-		_	-	-	-	_
Accrington Road	2				1	1				1	7	6	
Audley Range	. 4			1			3		4	3		7	
All Saints'	. 2		1	1			2	1					
Bank Top				1	1	1		1	2				
Cedar Street	10	•••	2	1	• • • •	2	3	• • • •	1	1		1	
Christ Church					•••		1			• • • •	1		2
Emmanuel		•••	• • • •	3		1	3	• • • •	1		•••		
Furthergate Four Lanes End	1	•••	•••	1	•••	1	1	1	1	4	1	2	7
Griffin	2	•••		•••	•••	1	•••	1	3	9	3		19
Holy Trinity	_	• • • • • • • • • • • • • • • • • • • •	•••							1		1	1
Lower Darwen C					1	1		1					3
Maudsley Street		1	1			4		î	1	1			6
Moss Street			1		1		2		3	1	3	2	12
Mill Hill C			1	2	1	2	2	1			1	1	11
Norfolk Street		1		3						1			5
Parish Hr. Gde.	1	1	1		1		1	2		1	3	2	13
Public Hr. G. (B)	1			1	1	2					1	3	9
Park Road				1	3	5			1	1	1	3	15
0 177 .	1	•••	1	•••	•••		3	1	1	1	•••	• • • •	8
Sacred Heart	1		•••			•••				1		2	10
St. Alban's " H. G.	• • • •	• • • •	1	1	1		1	3	•••	1	1	-	10
St. Anne's	•••	•••	1	1	1			•••	• • •	1	• • • •		3
St. Andrew's			2		î	1		1					4
St. Barnabas'	5	1	1		î	î		1	1		1		12
St. B'rtholom'w's					5	1		î		2	î		9
St. Gabriel's			1	1	1	1	1	2			î		8
St. James's S.B.						3							3
" В-а-М.				1			1						2
" Guide													1
St. John's	1		2		•••	6	3	1	4	6	4	4	31
St. Joseph's	•••	1	1	2	1	•••	1		• • • •		1	• • • •	7
St. Luke's	•••	1		1	1	•••		1	•••	1		• • • •	4 9
St. Mary's R.C St. Matthew's	1	•••	1	•••	1	•••	2 4	1 6	3	1	1	• • •	14
St. Michael's		1	1	2	1	•••			2	2	1	• • • •	10
St. Paul's	•••							1	1		2	1	5
St. Peter's N		3	4		2	1							10
RC	1	1	5	3	1								11
St. Silas's		2	3	1	1	2		1	1		4	3	18
St. Stephen's	•••	3		1	3	8	13	2	1	1	1	1	34
St.Thomas's	•••		1	3	2		2		1	1		1	11
Wensley Fold		2		1	1	1	2		•••	• • • •	1	•••	8
Whalley Range Witton Infants	1 5		2		1	2	3	2	•••	•••	1	1	12 12
Secondary School	5	4	•••	1	•••	1	1	•••	•••	•••	•••	$\frac{1}{2}$	3
Regent St. Special	•••	•••	1	•••	•••		•••	•••	•••	•••	•••		1
Secondary School	•••	•••			•••		•••		•••	•••	12	2	14
Private Schools A		1	1	1	•••					• • • •	•••		3
D					1	2		1		2	7	4	17
В				•••					:	2	1		3
C											3	• • •	3
Totals	36	92	20	25	20	10		22	20	40	G4	F.O.	101
Totals	30	23	33	35	36	49	55	33	32 •	43	64	52	491
									1				

## Diphtheria.

The total number of cases of this disease reported in the whole Borough during 1910 was 96, compared with 102 cases in 1909.

Of these 96 cases, 56, or  $58 \cdot 3$  per cent. occurred amongst school children.

Similar percentages for several previous years were as follows:—

Year.	Percentages
1904	40.0
1905	47 · 7
1906	50.0
1907	54 · 0
1908	50.0
1909	48.0

The following Table indicates the number of notified cases of Diphtheria occurring in each school, monthly, during 1910.

TABLE VI.--Diphtheria in Schools during 1910.

								1	-		(	1	î
	i	5.	ı;	r.	>	1e	>	å	Sept.	ندا	>	3	Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	je.	Oct.	Nov.	Dec.	[o]
									<u> </u>				
Accrington Road	•••									•••			
Audley Range	•••		•••	•••	•••	• • •	•••	• • •	• • • •	• • •	1		1
All Saints'	•••	•••	•••	• • • •	•••	•••		• • • •		• • • •			
Bank Top	•••	•••	•••	•••	•••	•••	1	•••	• • •		1	1	3
Cedar Street	2	•••	•••	• • • •	• • • •	•••	• • •		• • •	• • •	• • • •		
Christ Church	1	•••	•••	•••	• • • •		•••	1	1	•••			3 2
Emmanuel		•••	•••	•••	•••		•••	•••		• • • •		• • • •	
Furthergate Four Lanes End		• • • •	• • • •	•••	•••	• • • •	• • • •	•••			• • • •	• • • •	
Griffin			2	2		2	2	1	1		2		12
Holy Trinity													
Lower Darwen C.												}	
Maudsley Street													• • • •
Moss Street								1					1
Mill Hill C	1							1				1	3
Norfolk Street		1	1						1				3
Parish Hr. Gde.													
Public Hr. G. (B)													
,, ,, (G)												1	i
Park Road											1		1
Sacred Heart											4		
St. Alban's	•••				1								1
" H. G.													
St. Anne's									1			1	2
St. Andrew's			•••		•••		• • • •						
St. Barnabas'	1		1										2
St. B'rtholom'w's													
St. Gabriel's	•••						• • •						
St. James's S.B.	•••				• • •		• • •	•••				• • • •	
" Ва-М.	•••	•••			•••		•••	• • •				• • • •	
" Guide	•••	•••			•••	•••	• • •				• • •		•••
St. John's	•••	•••		1	•••	•••	•••	• • • •	1	1	• • •	•••	3
St. Joseph's		•••	•••	•••	•••	•••	1	• • • •				•••	1
St. Luke's	•••	•••	•••	•••		•••	•••	• • • •	••••	• • • •	• • •	•••	
St. Mary's R.C	•••	• • • •		•••	1	•••	•••		• • • •	•••		•••	1
St. Matthew's	•••	•••	1	•••	•••	•••	1	1	• • •	•••	•••	•••	2
St. Michael's	•••	•••	•••	•••	•••	•••	1	•••		• • • •	•••	•••	1
St. Paul's St. Peter's N		•••	•••	•••	•••	•••	•••	•••	1	•••	•••	•••	1
St. Peter's N R.C.	•••	•••	•••	•••	•••	•••	•••	•••		•••	•••	•••	
St. Silas's	1	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	1
St. Stephen's	i	•••	•••	•••	•••	•••	1	•••	•••	•••	•••	•••	2
St. Thomas's				•••	•••	•••		•••	•••	1	•••		1
Wensley Fold	•••				1	ï				2			4
Whalley Range		•••										1	1
Witton Infants		•••			1			1	1				3
					_								3
						-							
Totals	7	1	5	3	4	3	6	6	7	. 4	5	5	56
20000		_								_			33
	_	-							4 4	The second second	-	SMINE PROPERTY	-

## Typhoid Fever.

The total number of cases of this disease reported in the whole Borough during 1910 was 46, compared with 69 cases during 1909.

Of these 46 cases, 11 or 23.9 per cent. occurred amongst school children.

Similar percentages for several previous years were as follows:—

Year.	Percentage
1905	33 · 3
1906	31 · 7
1907	21 · 3
1908	22.3
1909	26.0

The following Table indicates the number of notified cases of Typhoid Fever occurring in each school, monthly, during 1910.

# TABLE VII.—Typhoid Fever in Schools during 1910.

R	
Accrington Road Audley Range All Saints' Bank Top Cedar Street I Christ Church Emmanuel I Furthergate Four Lanes End Griffin Holy Trinity Lower Darwen C Maudsley Street Mill Mill C Norfolk Street Parish Hr. Gde Public Hr. G. (B)  "(G) Park Road Sacred Heart St. Alban's "H.G. St. Andrew's St. Barnabas' St. B'rtholom'w's  "  "  "  "  "  "  "  "  "  "  "  "  "	 1 1 1 1
Audley Range	
Audley Range	
All Saints' Bank Top Cedar Street	
Bank Top	1
Cedar Street         1           Christ Church            Emmanuel         I           Furthergate            Four Lanes End            Griffin            Holy Trinity            Lower Darwen C            Maudsley Street            Mill Mill C            Norfolk Street            Parish Hr. Gde.            Public Hr. G. (B)            "GO            Park Road            Sacred Heart            St. Alban's            "H.G            St. Anne's            St. Barnabas'            St. B'rtholom'w's	1
Christ Church	1
Emmanuel 1	1 1 1 1
Furthergate	  1  1 1
Griffin  <	1  1 1 1
Holy Trinity	1  1 1 1
Lower Darwen C.  Maudsley Street  Moss Street  Mill Mill C.  Norfolk Street  Parish Hr. Gde.  Public Hr. G. (B)  "(G)  Park Road  Sacred Heart  St. Alban's  "H.G.  St. Anne's  St. Andrew's  St. Barnabas'  St. B'rtholom'w's	1  1 1 1
Maudsley Street         1         Moss Street            Mill Mill C.            Norfolk Street            Parish Hr. Gde.             Public Hr. G. (B)            " GG            Park Road            Sacred Heart            St. Alban's            St. Anne's            St. Andrew's            St. Barnabas'            St. B'rtholom'w's	1
Moss Street	1 1 
Mill Mill C.	1 1 
Norfolk Street	1 1 
Parish Hr. Gde. Public Hr. G. (B)  "(G) Park Road Sacred Heart St. Alban's  "H.G. St. Anne's St. Andrew's St. Barnabas' St. B'rtholom'w's	1 1 
Public Hr. G. (B)	1 
" (G)	
Park Road	
Sacred Heart	
St. Alban's          "H.G.          St. Anne's          St. Andrew's          St. Barnabas'          St. B'rtholom'w's	
""">St. Anne's       """"       """"       """ <td></td>	
St. Anne's          St. Andrew's          St. Barnabas'          St. B'rtholom'w's	
St. Barnabas'	
St. B'rtholom'w's	
St Cabriel's	
St. James's S.B	
" Ba-M	
,, Guide	• • •
St. John's	• • •
St. Joseph's	• • •
St. Luke's	• • •
C4 75 411 1	• • •
St. Matthew's 1	2
St. Paul's	
St. Peter's N	
D.C.	
St. Silas's 2	2
St. Stephen's	
St. Thomas's	
Wensley Fold	1
Whalley Range	• • •
Witton Infants	1
Secondary School 1	1
m ( ) 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Totals 2 1 4 1 3	11

## Whooping Cough.

120 cases of this disease were reported by school teachers during 1910, compared with 189 cases during 1909.

The greatest number of cases occurred during November and December.

The following Table indicates the number of reported cases of Whooping Cough occurring in each school, monthly, during 1910

# TABLE VIII.—Whooping Cough in Schools during 1910.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Accrington Road										2			2
Audley Range					3	12						•••	15
All Saints'												1	1
Bank Top													
Cedar Street			•••						3			19	22
Christ Church	•••	•••	•••		• • • •						23	8	31
Emmanuel				•••	• • • • •	•••		•••	•••	•••	•••	•••	
Furthergate	••• }	•••	•••	•••			•••	•••	• • •	•••	•••	•••	•••
Four Lanes End Griffin	•••	•••	•••	•••		•••	•••		•••	•••	•••	•••	•••
Griffin									5				 5
Lower Darwen C.													
Maudsley Street									1				1
Moss Street												1	i
Mill Mill C						1					• • • •		1
Norfolk Street				• • • •									
Parish Hr, Gde.	•••	•••	•••	•••	•••	• • • •	•••	• • • •				•••	
Public Hr. G. (B)	•••	•••	•••	•••	•••		•••	• • • •	• • •		•••		
" (G) Park Road	•••	•••	•••			•••	• • • •	•••	• • •	•••	•••	1	1
Sacred Heart		•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••
St. Alban's										•••	• • • •	•••	•••
" H.G			:::									1	1
St. Anne's													
St. Andrew's													
St. Barnabas'										7			7
St. B'rtholom'w's									•••	•••			
St. Gabriel's	•••	•••	•••	• • • •	• • • •	•••	•••	•••			•••		
St. James's S.B.	•••	•••		•••	•••	•••	•••	•••		•••	•••	•••	
" Ba-M.	•••	•••	• • • •	•••	•••	•••	•••	•••	3	•••	•••	•••	3
" Guide St. John's	•••	•••	i	•••	•••	•••	•••	•••		•••	•••	•••	1
St. Joseph's			,				•••						1
St. Luke's													
St. Mary's R.C													
St. Matthew's													
St. Michael's										2	•••		2
St. Paul's	•••				•••						7		7
St. Peter's N	•••				•••	•••	•••	•••	•••		•••	•••	
" R.C	•••	•••	•••	•••			•••	•••	• • • •		10	•••	1.0
St. Silas's	•••		•••	••••		•••	•••	•••		1	12		13
St. Stephen's St. Thomas's	•••	3	•••	2	1	•••	•••	• • • •	• • • •	•••	•••	•••	$\frac{4}{2}$
Wensley Fold			•••									.:.	_
Whalley Range													
Witton Infants												***	
Totals	•••	3	1	2	4	13	•••		12	12	42	31	120

### Chickenpox.

233 cases of this disease were reported from the schools during 1910, compared with 164 cases during 1909.

The greatest number of cases were reported in April.

The following Table indicates the number of reported cases of Chickenpox occurring in each school, monthly, during 1910.

TABLE IX.—Chickenpox in Schools during 1910.

		1	-									-	
	ü	p.	Mar.	i.	ay	June	July	Aug.	Sept.	;;	Nov.	Dec.	Total
	Jan.	Feb.	M	Apr.	May	Ju	Ju	Aı	Se	Oct.	ž	ñ	To
Accrington Road				8	1							5	14
Audley Range			9										9
All Saints'		1											1
Bank Top	•••				•••	2	6	•••	•••				8
Cedar Street	•••			• • • •	•••		•••	•••	4	1		13	18
Christ Church	•••	2		•••	•••	•••	•••	•••	•••	1	1	3	4
Emmanuel Furthergate	•••	12	1	•••	•••	1		•••		1	•••	•••	4 13
Four Lanes End.	•••								1	•••	•••		1
Griffin													
Holy Trinity													
Lower Darwen C.													
Maudsley Street .													
Moss Street							1	•••	1	12	8	1	23
Mill Hill C	1	• • • •	•••	20	4		•••		•••	• • •	•••	•••	25
Norfolk Street	•••		•••	•••	•••	1	•••	•••	•••	•••	•••	•••	1
Parish Hr. Gde Public H.G. (B)							•••		•••				•••
(G)		2										2	4
Park Road						3							3
Sacred Heart												2	2
St. Alban's										1	3		4
" H.G	•••										•••	•••	
St. Anne's		• • • •					•••	•••	•••	•••	• • • •	•••	
St. Andrew's St. Barnabas'		•••		3	7	•••	•••	•••	•••	•••	1	•••	10
St. Barnabas' St. Gabriel's										9			1 9
St. James's S.B.		:::		1		1						1	3
" B-a-M.													
" Guide							5						5
St. John's				2	6					1		1	10
St. Joseph's		• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	•••	•••		• • • •		•••
St. Luke's		•••	•••			• • • •	•••	•••	•••	•••	•••		
St. Mary's R.C St. Matthew's			2	2	1	1	•••	•••		•••	•••	1	$\frac{1}{8}$
St. Michael's			1	6	2		1						10
St. Paul's	-		1							:::			1
St. Peter's N												٠	
" R.C				1	4	3				2			10
St. Silas's			•••	1	1	2	2		•••	•••	•••	1	7
St. Stephen's	4			6	4	3		•••	•••	•••			13
St. Thomas's		1	5	1		•••	•••	•••	•••	•••	•••	•••	8
Wensley Fold Whalley Range												3	3
Witton Infants													
		1	1	1	'''			1		1			
	1	1									1	1	
•													
	1					1							
	-	-	-	-	-				-			-	
Totals	5	18	18	51	30	17	15		6	27	13	33	233
												1	

### Mumps.

146 cases of Mumps were reported from the schools during 1910, compared with 468 cases during 1909.

There was thus a great diminution in this disease.

The following Table indicates the number of reported cases of Mumps occurring in each school, monthly, during 1910.

TABLE X.—Mumps in Schools during 1910.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Accrington Road Audley Range All Saints' Bank Top Cedar Street Christ Church Emmanuel Four Lanes End Griffln Holy Trinity Lower Darwen C. Maudsley Street Mill Hill C. Norfolk Street Parish Hr. Gde. Park Road St. Alban's H.G. St. Anne's St. Andrew's St. Andrew's St. Barnabas' St. Barnabas' St. Barnabas' St. Barnabas' St. James's S.B.						1	1				16	1	1 1 1
Totals		3	3		15	7	37		7	11	46	17	146

# Other Conditions of Disease Reported from the Schools during 1910.

91 other conditions of disease beyond those already mentioned in this section were reported to me by school teachers during 1910, as follows:—

 Feverishness
 48

 Ringworm
 43

 —
 91

TABLE XI.

Cases of Scarlet Fever, Diphtheria, and Enteric Fever amongst School Children removed to Hospital.

	Scarlet Fever.	Diphtheria.	Enteric Fever.
Number of notified cases occurring amongst children attending School	491	56	11
Number of cases removed to Hospital amongst children attending School	337	29	7
Percentage of cases removed to Hospital amongst children attending School	68.6	51.7	63.6
Total number of cases notified in the Borough	795	96	46
Total number of cases removed to Hospital	530	42	22
Percentage of cases removed to Hospital from the whole Borough	66 · 6	43.7	47.8

There is still considerable doubt in the minds of many parents and teachers as to the question of exclusion from school of children who are either suffering from, or who have been in contact with the various Infectious Diseases which are an accompaniment of school-life.

I have therefore thought it advisable to reproduce the following

MEMORANDUM to Medical Officers of Health and School Medical Officers -upon Public Health Administration for the Prevention of the Spread of Infectious Diseases occurring among Children attending Public Elementary Schools, with special reference to the circumstances in which the Closure of Schools, or the Exclusion of Individual Scholars, may be necessary.

This Memorandum is a revised and enlarged edition of the "Memorandum on the Circumstances under which the Closing of Public Elementary Schools or the Exclusion therefrom of particular Children may be required in order to prevent the spread of Disease," which was last issued by the Local Government Board in January 1908. The circumstances which have occasioned the revision of the Memorandum and the addition of much new matter are referred to below, and it has been considered desirable that the revised Memorandum, in the preparation of which the Chief Medical Officer of the Board of Education has co-operated, should now be issued.

September, 1909.

#### PART I.—INTRODUCTORY AND GENERAL.

1.—School Hygiene has been placed upon an altered footing by Section 13 of the Education (Administrative Provisions) Act, 1907; and the introduction of the School Medical Officer into the local administrative machinery of preventive medicine has been accompanied in the Code of Regulations for Public Elementary Schools (1909) by new or modified provisions as to medical inspection, and as to the closure of schools and the exclusion of individual scholars with a view to the prevention of the spread of disease.

As will be seen from a consideration of this Memorandum, the recent changes have materially increased the possibilities of effective action against disease possessed by local authorities and their medical officers.

CODE REQUIREMENTS FOR SCHOOL CLOSURE AND FOR THE EXCLUSION OF INDIVIDUAL SCHOLARS.

#### School Closure.

2.—The Code for 1909 contemplates that in certain particulars new administrative conditions shall be satisfied before the Board of Education will allow a claim for grant in respect of schools which, owing to closure with a view to preventing the spread of disease, have not been open the requisite number of times.

This closure may be compelled by the Sanitary Authority under Article 57 of the Code, or may be voluntary on the part of the Local Education Authority. Article 57 is as follows:—

Article 57. If the Sanitary Authority of the district in which the school is situated, or any two members thereof, acting on the advice of the Medical Officer of Health, require either the closure of the school or any department thereof, or the exclusion of certain children for a specified time, with a view to preventing the spread of disease or any danger to health likely to arise from the condition of the school, such requirement must at once be complied with.

As regards the Grant, provision is made by Article 45 (b) where a school is compulsorily closed or is closed under the advice or with the approval of the School Medical Officer, or for any other unavoidable cause. It runs as follows:—

Article 45 (b). If the requisite number of meetings has not been held owing to a closure of the school under Article 57, or under the advice or with the approval of the School Medical Officer, or for any other unavoidable cause, the grant will be paid in full, provided that the requirements of this Article are satisfied after an allowance of nine meetings has been made for each week of such closure.

# Exclusion of Children.

If the Sanitary Authority or two members thereof, acting on the advice of the Medical Officer of Health, require the exclusion of certain children for a specified time in order to prevent the spread of disease, those children must be excluded (Article 57). Thus the Medical Officer of Health can initiate a compulsory process, whether for closing the school or for excluding scholars, though he can only do so through the Sanitary Authority or two members thereof.

The exclusion of children is also provided for on the authorisation of the School Medical Officer by Article 53 (b) of the Code, which is as follows:—

Article 53 (b). Where the Board (of Education) are satisfied (i) that proper arrangements have been made by the Local Education Authority for enabling the School Medical Officer to ascertain and certify cases in which the exclusion

of children from school is desirable, and (ii) that the School Medical Officer has authorised the exclusion of certain children from the school

- (1) on the ground that their exclusion is desirable to prevent the spread of disease, or
- (2) on the ground that their uncleanly or verminous condition is detrimental to the other scholars, or
- (3) on the ground that, owing to their state of health or their physical or mental defects, they are incapable of receiving proper benefit from the instruction in the school.

the exclusion of such children shall be deemed for the purposes of this Code to be exclusion on reasonable grounds.

For the purposes of this provision the Local Education Authority may direct that no children who have been excluded under the authority of the School Medical Officer or under Article 57 or who have been absent from school owing to sickness, shall be re-admitted to school if the School Medical Officer is not satisfied that they can attend school without risk to themselves or others.

Every direction or authority given by the School Medical Officer must be embodied in a certificate signed by him. A copy of every certificate must be furnished to the Local Education Authority and must be produced, if required, to any Inspector or Officer of the Board's Medical Department.\*

- 3.—The general effect of the changes which these Articles of the Code bring about may be stated as follows:—
  - (a) Henceforth there is no appeal against requirements of the Sanitary Authority made in accordance with the terms of Article 57.
  - (b) Under previous Codes, the requirements of the Article corresponding to Article 45 (b) have been satisfied when a school has been closed voluntarily "under medical authority" including the advice or approval of any medical practitioner. Under the present Code, where closure for medical reasons has been affected voluntarily, the requirements of Article 45 (b) will not be satisfied unless the School Medical Officer recognised by the Board of Education has advised or, where he has not advised, approves the closure.

<sup>\*</sup> For the purposes of the Code "School Medical Officer" means a medical officer named by the Local Education Authority, and recognised as such by the Board of Education. In exceptional cases, the Board of Education will recognise separate School Medical Officers for separate parts of one area.

(c) In practice it is customary for the Medical Officer of Health. without resorting to the formal procedure of Article 57. to arrange, as soon as an infectious case is notified to him. for the temporary exclusion from school of the infected child and of any children who have been in contact with the infectious case, or of any children suspected of being themselves infectious. If such exclusions are to be deemed to be on "reasonable grounds" they must, in accordance with Article 53 (b), be endorsed at the time or subsequently by the School Medical Officer. In previous Codes, exclusion on any medical authority has been regarded as "reasonable ground" for exclusion. The new conditions indicate the desirability of a working arrangement between the Medical Officer of Health and the School Medical Officer, when they are not the same officer, in order that the former may not need to adopt the procedure provided in Article 57, for the formal and compulsory exclusion of individual scholars.

# Co-ordination of Work of Medical Officer of Health and of the School Medical Officer and other School Officers.

4.—It is the desire alike of the Local Government Board and of the Board of Education that the relations of the Local Sanitary Authority and of the Local Education Authority, should in all respects be intimate and cordial, in order that the administrative procedures of both bodies may be reciprocally beneficial. It is only by such mutual co-operation that the best interests of each district can be secured to the fullest extent.

5.—It must, however, be borne in mind that the Medical Officer of Health, acting under the Sanitary Authority, is responsible for dealing with outbreaks of infectious disease, including such outbreaks in schools; and the action of the School Medical Officer, where he is not also Medical Officer of Health, must be consistent with this general consideration. The importance of this consideration is indicated by the fact that the statutory powers as to isolation of patients and the cleansing and disinfection of houses are possessed by Sanitary Authorities alone. The new requirements of the Code in no way diminish the responsibility of the Medical Officer of Health for taking all such steps as are demanded in the public interest to prevent the spread of infection. As a matter of administrative educational procedure, the certificate of the School Medical Officer is required under Article 53 (b) for cases of exclusion, and for voluntary closure of a school for infectious disease under Article 45 (b); but the Medical Officer of Health must be in a position to act promptly in each instance, more particularly in regard to exclusion. Cases may frequently occur where prompt action is essential, and where valuable time would be lost by reference either to the Sanitary Authority, with a view to the issue of requisitions under Article 57, or to the School Medical Officer; and it is eminently desirable that in these cases, more especially as regards the exclusion of individual scholars, the Medical Officer of Health should be in a position to take immediate action.

- 6.—This end can best be secured, in cases where the Medical Officer of Health is not himself the School Medical Officer, by the establishment of definite working arrangements between these two officers under which, on the one hand, Local Education Authorities will authorise Managers and Teachers to act, as in the past, on the recommendations of the Medical Officer of Health, and, on the other hand; the Sanitary Authorities will arrange that the Medical Officer of Health embodies his recommendations in certificates which are transmitted to the School Medical Officer with a view to the formal authorisation required by Article 53 (b) of the Code in cases of exclusion, and to the approval required by Article 45 (b) in cases of closure. Where such working arrangements are adopted, it should seldom be necessary under the new conditions for the Medical Officer of Health to advise the Sanitary Authority, or two Members thereof, to put into force the powers conferred upon them by Article 57 of the Code.
- 7.—The conditions under which mutual co-operation between officers of the Local Sanitary Authority and of the Local Education Authority can be made most effective will vary according to local organisation. When in autonomous areas, the Medical Officer of Health and the School Medical Officer are the same officer, direct unity of action is at once obtained. In all other cases, waste of effort and some duplication of work can only be avoided by agreement between the two officers and their authorities on general lines of action, both as to the details of medical administration, and as to the regulations for teachers and other school officers mentioned in paragraph 9.

In county areas, where the County Medical Officer of Health is also the School Medical Officer, he is in a position to organise the needed co-operation. Where, however, these offices are held by different persons, or where there is no County Medical Officer of Health, it is obviously desirable that definite arrangements should be made between the Local Education Authority and the Local Sanitary Authorities, providing for the harmonious co-operation of their respective officers. When Assistant School Medical Officers are not themselves the District Medical Officers of Health, the need for frequent interchange of information between the officers of the Sanitary and Education Authorities will arise; and lines of action in regard to closure of schools and the exclusion of individual scholars will need to be settled with due reference to the particular circumstances of the area, and to the regulations adopted by the Local Education Authority for the organisation of the School Medical Service.

8.—In order that the requirements of Article 53 (b) of the Code may be met, it is necessary that all cases of exclusion from school

by the direction of the Medical Officer of Health should be promptly reported by that officer to the School Medical Officer. As a rule, closure of the school should only be arranged in consultation with the School Medical Officer. This rule should be followed, save in serious emergency; and when immediate closure is necessary in the interests of public health, the Medical Officer of Health should at once communicate with the School Medical Officer.

9.—Efficiency in the prevention of the spread of infection implies active co-operation not only between the Medical Officer of Health and the School Medical Officer, but also between these officers and the school teachers, school nurses, and attendance officers. This general need can be met by each Local Education Authority making regulations as to the duties of each of their officers to send forthwith to the Medical Officer of Health and to the School Medical Officer, information regarding any children suspected to be suffering from infectious illness, and to exclude such children temporarily. This point is emphasised in the following recommendation quoted from Circular 596 issued by the Board of Education on 19th of August, 1908:—

He (the School Medical Officer) must so organise his machinery that both he and the Sanitary Authority shall receive immediate information of any such occurrence (of infectious disease) whether the disease is notifiable or not, by duplicate notices or otherwise, so that the matter may be dealt with effectively and without confusion at the earliest possible moment. Definite regulations should be made for this purpose.

It is expected that such regulations defining the circumstances in which teachers and other school officers should notify suspected cases of infectious disease to the Medical Officer of Health and to the School Medical Officer will be made generally by Local Education Authorities.

#### PART II.—PRINCIPLES OF ACTION.

#### Information as to Notifiable Diseases.

10.—Success in the control of infection depends on the completeness and promptitude with which each case of infectious disease is recognised, and the completeness and promptitude of the action taken on this information. In this and the following eight paragraphs, the means of obtaining such complete and prompt information are considered. All known cases of the diseases coming within the scope of the Infectious Disease (Notification) Acts or of Section 55 of the Public Health (London) Act are notified to the Medical Officer of Health. Scarlet Fever and Diphtheria are the most common diseases affecting school children which are thus notifiable. Measles and Whooping Cough, which are even more prevalent among

school children, do not in the majority of sanitary districts come within the scope of the Notification Acts, though they can be added by resolution of the Sanitary Authority subject to the approval of the Local Government Board.

# Investigation of "Missed Cases."

11.—In the administrative control of such notifiable diseases. therefore, action must start with the Medical Officer of Health. a well-organised and efficiently worked sanitary district, each notification by a medical practitioner of a case of one of the notifiable diseases should form the starting point for a prompt and full investigation of the possibilities of infection. As stated in Article 18 (2) of the Local Government Board's Regulations as to Medical Officers of Health, it is the duty of the Medical Officer of Health "to enquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within his district"; and with this object in view he will regard each case of notified disease as possibly connected with other cases of the same disease. which, owing to their mildness, or the absence of some of the characteristic symptoms, have been overlooked by the parent, or the teacher, or both. The investigation of such missed cases is indispensable to effective administration. A portion of this investigation may need to be undertaken at the patient's home; it is incomplete unless an equally thorough inquiry has been made into the condition of the children who have been in contact at school with the scholar who has fallen ill. This inquiry should be shared by the Medical Officer of Health and the School Medical Officer, if these offices are not held by the same official. It should include the recent history and present condition of children who have recently returned to school after an interval of absence, and be followed by careful watching of the children who have been in contact with the infectious case.

#### Instructions to Teachers and Parents.

12.—It is in connection with these investigations that the cooperation of teachers and parents is needed, as well as of the School Medical Officer whenever the latter can help in this work. Infection is often spread in school by the attendance of children suffering from initial and unrecognised symptoms, or attending school in the convalescent stage, or throughout the course of a mild attack of an infectious disease. To minimise the danger, the teacher should be instructed in the symptoms of onset of the chief infectious diseases, and the symptoms which may be manifested by children who have recently passed through the acute stages of these diseases. Clear directions should be given by Local Education Authorities instructing teachers temporarily to exclude children showing any symptom suggestive of any of these diseases, until medical assurance can be had that they may attend school without harm to themselves or danger to other scholars. Instructions of this kind will naturally find a place in the arrangements required by Article 53 (b) of the Code for enabling the School Medical Officer to ascertain and certify cases in which exclusion is desirable. During the prevalence of any particular infectious disease, the attention of the teacher may be drawn, by circular letter or otherise, to the most obvious symptoms indicating the possibility that a scholar is sickening for, or is suffering or recovering from, this disease.

# Intimations by School Officers to Medical Officer of Health and School Medical Officer.

13.—Under regulations framed as suggested in paragraph 9. or apart from such regulations, the school teacher and school attendance officer should inform both the Medical Officer of Health and the School Medical Officer of any children who have recently been kept at home with illness of a suspicious character, or concerning whom, circumstances suggest the possibility of infection. This information probably will have come to the teacher and to the attendance officers from direct communication with parents. In some instances the attendance officers and in others the teachers may obtain the earliest information; and the system of intimations to the Medical Officers should be so arranged as to secure the simultaneous conveyance to the Medical Officer of Health and to the School Medical Officer of such information. No harm can come from duplication of such notifications, and the Local Education Authority can, by careful organisation, devise arrangements which shall be prompt and effective and at the same time easy in application.

14.—Opportunity should be taken by circular letters or otherwise to impress upon parents their responsibility in preventing the spread of infection in schools, especially when any special disease threatens to become prevalent. The particular attention of parents should be drawn to the fact that a "bad cold" or an "ulcerated throat" or a "spring rash" may, in fact, indicate a mild attack of diphtheria or scarlet fever, and that to send children to school either so suffering or when convalescing from such conditions, without having first obtained a medical opinion, may involve serious consequences to other children.

# Occasional Diagnosis by Medical Officer of Health,

15.—The difficulty occasionally arises that the parents of a child who is suspected to be suffering from a mild attack of an infectious disease cannot afford to send, or will not send, for a doctor, although they have kept the child away from school for a few days. Exclusion from school must be continued in these, as in all cases of suspicion, until doubt as to the nature of the case has been removed; and meanwhile, the parent must be pressed to utilise the private or public agencies available for medical diagnosis according to circumstances. In such cases, if delay and consequent danger of spread of infection are to be avoided, the Medical Officer of Health or the School Medical Officer or some other medical man temporarily

or permanently acting for the Sanitary Authority, should make or aid in making a diagnosis. This corresponds to the general practice in investigating outbreaks of small-pox; and its more frequent adoption for other infectious diseases would enable local authorities to make better use of their isolation hospitals and other official machinery for preventing the spread of disease.

# Intimations by Medical Officer of Health to School Medical Officer and Head Teacher.

16.—The information as to notifiable infectious cases among school children obtained by the Medical Officer of Health should be promptly transmitted to the School Medical Officer and to the Head Teacher of the school concerned, in order that the necessary instructions as to exclusion from school, &c., may be given. In the Metropolis, under Section 55 (4) of the Public Health (London) Act, 1891, it is compulsory on the Medical Officer of Health to send a copy of each notification certificate within twelve hours after its receipt to the Head Teacher of the school attended by the patient (if a child), or by any child who is an inmate of the same house as the patient. In sanitary districts outside the Metropolis, similar intimations should be sent promptly both to the School Medical Officer and to the Head Teacher. The notice thus sent to the teacher may also usefully comprise general information on the symptoms of infectious diseases.

#### Information as to the Non-Notifiable Diseases.

17.—Measles, whooping-cough, mumps, chicken-pox and infectious diseases other than scarlet fever and diphtheria, which prevail among school children, are seldom added by Sanitary Authorities to the schedule of compulsorily notifiable diseases. Even in districts in which any of these diseases are notifiable, the parents commonly either do not consult a doctor, or they call him in after secondary infection of other children has already occurred. Hence the Medical Officer of Health is dependent for information on the School Medical Officer and on parents, teachers, and attendance officers; and if the rapid spread of these diseases in school, and the need for exclusion from school on a large scale, or for school closure are to be avoided, school officers and parents should furnish this information to the Medical Officer of Health. Prompt and complete notification to the Medical Officer of Health and to the School Medical Officer of such "minor" cases of infectious disease is difficult to ensure; but the appropriate action of Local Education Authorities on the recommendation contained in paragraph 7 (c) of the Board of Education Circular 596, dated 17th August, 1908, will, it is hoped, go far towards securing this end. (See paragraph 9 ante).

# Intimations as to Cases of Doubtful Nature.

18. Apart from systematic and prompt intimation to the medical officers by teachers and attendance officers of all cases of

the non-notifiable infectious diseases ascertained by them, further intimations should be sent by them of the absence from school of any child on the suspicion that it is suffering from an infectious disease; and absence of several children of one family from school at the same time, no matter what name be given to the complaint that keeps them at home, should also be reported. In practice it has been found that such intimation of absentees has materially aided the Medical Officer of Health in taking measures for the suppression of infectious disease.

19.—The medical inspections carried out under the Education (Administrative Provisions) Act of 1907 will in due course enable the medical history of each scholar in respect of infectious diseases to be recorded; and the knowledge thus secured will in the future be valuable in determining whether in particular cases children need to be excluded from school or classes need to be closed when an outbreak of infectious disease occurs. It is anticipated that this information will be valuable, especially in dealing with outbreaks of measles.

It is possible that in the light of these records and of further work under the new statutory and administrative conditions, some modification of the rules for exclusion and closure given in paragraphs 37 to 54 may be indicated.

# GENERAL CONSIDERATIONS AS TO THE ACTION TO BE TAKEN IN RESPECT OF INFECTIOUS DISEASES OCCURRING AMONG SCHOOL CHILDREN,

- 20.—There is little doubt that infection in schools is spread to a much greater extent by infectious persons than by infected things; and that by systematically obtaining the information as to the infectious cases indicated in paragraphs 10 to 19, and by adopting the measures of exclusion of patients and of recent "contacts" with them which are described in paragraphs 37 to 55, the common sources of infection can be controlled.
- 21.—Subject to this chief consideration, certain other administrative lines of action may be here indicated. Disinfection of special classrooms or of particular articles should be undertaken when there is reason to believe that these have been infected. A special caution may be given as to the risk arising from moistening slates with saliva, or from the use in common of penholders and pencils which are apt to be put in the mouth; and steps should be taken to avoid this.
- 22.—The frequent and thorough washing of class-rooms and cloak-rooms is an efficient means of removing both dust and infection. Dry sweeping on the other hand tends to scatter dust.
- 23.—Much can be done to prevent the spread of infection by due attention to the sanitation and ventilation of school-rooms and cloak-rooms; and, so far as practicable, by preventing children

having to sit in school in wet clothes or with wet feet. Overcrowding greatly favours the spread of infection, while adequate means of ventilation kept in constant effective use diminish it. The water supply of the school should be pure; and lavatories and closets should be kept in a satisfactory state.

## (i.) Exclusion of Individual Children.

24.—It may be laid down as a general principle that all children suffering from any dangerous infectious disease (*i.e.*, of a nature dangerous to some of the persons attacked by it, however mild in other cases) should be excluded from school until there is reason to believe that they have ceased to be in an infectious condition (see section 126 of the Public Health Act, 1875, also section 57 of the Public Health Acts Amendment Act, 1907; the latter section may be put in force in any district by Order of the Local Government Board).

Furthermore, as it is seldom possible to provide effectual separation of the sick from the healthy within the homes of children attending public elementary schools, it is often necessary that all children of an infected household should be excluded from school; first, because otherwise such children, if unprotected by a previous attack, might attend school while suffering from the disease in a latent form, or at an unrecognised stage; and secondly, because it known that infection of certain diseases may itself to, and be conveyed by, the throat secretions or the clothes of a person living in an infected dwelling, even though the person himself remain unaffected. The same considerations will sometimes make it desirable to prohibit the attendance at school of children who are known to have been in contact with a source of infection; of children of certain ages or classes; or of children from a particular street or hamlet.

- 25.—The mode of procedure as regards recognised disease will depend on the natural history of the disease concerned. Patients themselves must not be allowed to attend school (a) until free from infection, and (b) until such disinfection of the house and of the patient's apparel as may be necessary has been secured. It is impossible to state exactly when personal infection ceases, and the Medical Officer of Health must not assume that at the end of the ordinary period of isolation danger to others has, without doubt, entirely ceased. It has ceased in the majority of instances; but in a minority of cases—for instance of scarlet fever and of diphtheria, whether treated at home or in an isolation hospital—the child remains infectious for a much more protracted period; and in practical administration this possibility must be borne in mind and allowed for.
- 26.—The action with regard to healthy children in the same household as the patient will vary in different instances. The usual procedure is to allow their return to school at an interval after the

removal or complete recovery of the patient and disinfection of the house a little longer than the maximum known period of incubation of the disease in question. In view of the occurrence of slight overlooked cases and of "carrier" cases of infection, it is often advisable to prolong to a certain extent, as indicated hereafter, this period of exclusion from school.

27.—Exclusion from school of the children of infected households most often fails as a means of preventing spread of infection because there are undiscovered or unrecognised cases or carriers of infection; and its failure points to the continued attendance at school of children having recently had attacks of the prevalent disease in a mild or unrecognised form, or who, without themselves being ill, are carriers of infection. Such unrecognised cases are to be sought especially among (a) children attending school from the same street or vicinity as the recognised patients; (b) children in the same class; and especially (c) children who on reference to the school register are found to have returned to school after a short absence.

Although the provision will probably be more useful in private schools, attention may be drawn to section 58 of the Public Health Acts Amendment Act, 1907, which, in districts in which it has been put in force, enables lists of scholars in a school in which any scholar is suffering from an infectious disease to be obtained.

## (ii.) School Closure.

- 28.—School closure is occasionally necessary on account of infectious sickness in the teacher's family involving risk to the scholars. It is also occasionally necessary to close a school or division for one or two days in order that it may be disinfected and cleansed after children suffering from infectious disease have been in attendance, or to allow of the rectification of sanitary defects of a nature likely to contribute to outbreaks of disease.
- 29.—But in the absence of such special and exceptional reasons for closure, it should not often be necessary to close the school in the interests of public health, if the power to exclude individual children be used to the best advanatge. It is only when this less comprehensive but more discriminating and often sufficient action has failed, or owing to imperfect co-operation between the public health and the school authorities cannot be applied to the necessary extent, that the question of advising the Sanitary Authority to require the closure of the school in the interests of public health can arise.
- 30.—It must be remembered that the closure of the school will deprive the Medical Officer of Health and the School Medical Officer of information respecting attacks in their early stage or illness of doubtful nature which would otherwise be obtainable, and in any circumstance, will interfere seriously with the education

of the scholars. Closure, therefore, should be advised by the Medical Officer of Health only in circumstances involving imminent risk of an epidemic, and not then as a matter of routine, nor unless there be a clear prospect of preventing the spread of infection such as cannot be expected from less comprehensive action.

31.—School closure is more likely to aid in preventing the spread of disease in scattered rural districts than in towns, owing to the fewer opportunities which exist in the former for intercourse between the children of different households elsewhere than at school.

It has also to be borne in mind that in such scattered rural districts, means of isolation and of tracing doubtful cases are less effective. Hence, school closure is likely to continue to be needed somewhat more frequently in such districts than in towns.

- 32.—In places where there are several public elementary schools, if an outbreak of infectious disease be confined to the scholars of one particular school, it may be sufficient to close that school only, and even where school closure is deemed necessary in the case of a particular school, it need not always extend to the whole school or department, but may on suitable occasions be limited to particular classes or departments.\*
- 33.—On the other hand, where different schools have all appeared to aid in the spread of disease, though perhaps to an unequal extent, it may be considered advisable that all should be closed lest children in an infectious state who previously attended the schools that are closed, should be sent to others that might remain open. There is, however, less likelihood than heretofore that such attendance will be permitted, and a general closure on this ground will seldom be needed.
- 34.—Playgrounds should not remain open when schools are closed, as they provide a meeting-place for the children whom it is the object of the closure to keep apart.
- 35.—It may be laid down as a general principle that closure of a school or of a particular class is justified when the general evidence points to this school or class as the source of infection, and when cases of an infectious disease continue to occur in this class or school after every effort to discover the infecting cases has been made. The degree of application of this principle to special cases is discussed later.
- 36.—But while the Medical Officer of Health in deciding whether to advise the Sanitary Authority to require the closure of

<sup>\*</sup> It is to be understood that the exclusion of all the children in a particular class in a department or school leaving the other children in the department or school free to attend school is not for the purposes of Article 45 (b) of the Code "closure" of the department or school, and that the provisions of that article do not apply in such cases.

a public elementary school† will be guided mainly by the consideration how best to check the spread of disease, other considerations may require also to be taken into account by the School Medical Officer in deciding whether to advise or to approve action taken voluntarily under Article 45 (b) of the Code.

School attendance may be greatly lowered during the prevalence of an infectious disease, especially of measles and whooping-cough, and school closure may then be desired to avoid a considerable reduction in the average attendance. In such circumstances, a large proportion of susceptible children have generally already contracted the disease or been exposed to infection, and the closure of the school commonly does little to prevent further spread of the disease. Closure by the Sanitary Authority under Article 57 of the Code is contemplated solely in the interests of public health, and apart from this consideration, the Medical Officer of Health is not justified in advising closure to prevent financial loss to the Local Education Authority.

The question of closure, when that step is not clearly necessary to prevent the spread of disease, should therefore be left to the voluntary action of the Local Education Authority advised by the School Medical Officer, if he is not himself Medical Officer of Health. That officer, however, before advising or approving closure, should confer with the Medical Officer of Health on the public health aspects of the proposed closure.

# PART III. RULES FOR ACTION IN RESPECT OF PARTICULAR DISEASES AND RULES OF OFFICIAL PROCEDURE.

37.—The diseases for the prevention of which the exclusion of particular children from school or school closure may be required are principally those which spread by infection directly from person to person, such as measles, whooping-cough, scarlet fever, diphtheria,

<sup>†</sup> Sanitary Authorities have no general power in respect of Sunday schools, or other private schools, except in so far as these may contravene Section 91 (5), Section 126, or other provision of the Public Health Act, 1875, but it will often be expedient to invite the co-operation of managers of such schools in efforts for securing the public health. Experience shows that they are usually ready to defer to the representations of the authority responsible for the public health of the district.

If, however, the Local Government Board, on the application of the local authority, have declared Sections 57 and 58 of the Public Health Acts Amendment Act, 1907, to be in force in the district, the Medical Officer of Health will have power to require a child who is or has been suffering from infectious disease or has been exposed to infection to be excluded from school until the Medical Officer has certified that the child may attend school without undue risk of communicating such disease to others (Section 57). The power given to the Sanitary Authority by Section 58 to obtain a complete list of the names and addresses of day scholars in schools in which any scholar is suffering from infectious disease may be useful to the Medical Officer of Health in his investigation of the causes of outbreaks if he finds it necessary to extend his enquiry to private schools.

epidemic influenza, small-pox and rötheln (German measles). In rare cases the same measures may be necessary for enteric fever and diarrhoeal diseases, when these spread through the agency of local conditions, such as infected school privies.

38.—In the light of the general principles already set out, the following procedure appears to be indicated in order to enable the Medical Officer of Health or the School Medical Officer to advise as to the minimum duration of exclusion of school children which can with reasonable safety be adopted in the several more common infectious diseases.\* It should be noted that although certain recommendations are made as to duration of exclusion of patients and of "contacts" with them, these recommendations are subject to the proviso that each case as it occurs requires and should receive individual consideration.

#### Scarlet Fever.

- A. Rules for Exclusion of Individuals,
- (1) As regards each child attacked by the disease.
- 39.—(a) When treated in the Isolation Hospital he is usually detained for about six weeks, and longer if any mucous discharges continue. After return home, in view of the occasional protracted infectiousness of patients with such discharges, and sometimes even of those without them, a notice should be sent to the teacher, and a notice should also be given to the parent to the effect that the patient should not attend school for two weeks.†
  - (b) When the patient has been treated at home the same rules apply exactly, assuming that the patient and his rooms have been effectively disinfected after the illness has ended.
  - (2) As regards children living in infected houses.
- 40.—(a) When the patient has been removed to the Isolation Hospital, the teacher and the parents should be instructed to keep all children living in the same house away from school for two complete weeks from the day on which disinfection, subsequent to the removal of the patient, has taken place; and the parents of all children in the house, especially the parents of the patient, should be instructed to keep these children out of contact with other children for the same period.

<sup>\*</sup>In this connection the provisions of Article 53 (b), small print, of the Code for 1909 (quoted on page 5 of this Memorandum) must not be overlooked, and it must be remembered that, if the Local Education Authority so direct, the School Medical Officer will have full power to prolong the period for which any children have been excluded from school owing to sickness.

<sup>†</sup> A longer period, e.g., of four weeks may not infrequently be necessary, not only in view of the health of the patient, but also if the occurrence of mucous discharges or other circumstances indicate that some measure of infectiousness may persist after cessation of home or hospital isolation,

This interval, although longer than the longest recognised incubation period for scarlet fever, is desirable in the case of children because of the occasional occurrence of anomalous or slight unrecognised attacks.

(b) When the patient is treated at home no other children from the same house should attend school while the patient is infectious, nor for two weeks after the end of his period of isolation.

#### RULES FOR CLOSURE OF SCHOOL.

41.—If there is active co-operation between the school attendance officers and teachers and the Medical Officer of Health, school closure should only exceptionally be needed for scarlet fever. In school, this disease usually spreads slowly from child to child, and not in the explosive manner characteristic of measles. Hence, diligent search for slight cases and supervision of "contacts" should in most instances render school closure needless.

### Diphtheria.

#### A. ADVANTAGE OF BACTERIOLOGICAL EXAMINATION.

42.—The examination of the throats of "contacts," whenever practicable, by bacteriological means, is a most important aid to precautionary measures against the spread of diphtheria. If a positive result is obtained in the case of children showing no evidence of diphtheria, the presence of some measure of infection must be assumed, though it will not be advisable to insist on the removal of such patients to an isolation hospital.

It is recognised that in many sanitary districts, arrangements do not exist for such examinations; but it has been thought better to set forth the line of action commonly adopted in the best organised sanitary districts. Clinical examination of contacts and other children often throws valuable light on the origin of outbreaks of diphtheria. Particular attention should be paid to children who have been absent without known cause, or who show evidence of

pallor, enlarged glands, or sore noses.

- B. Rules for Exclusion of Individuals.
- (1) As regards each child attacked by the disease.
- 43.—(a) When treated in the Isolation Hospital the patient should, when practicable, be detained until three successive swabs taken on different days have given consistent negative results. These swabs should not be taken until at least 48 hours have elapsed since the last application of any disinfectant to the throat.

In view of the debility left by an attack of diphtheria, and the possible return of infectivity in the secretions of the nose or throat, a notice should be sent to the teacher stating that the child should not return to school for four weeks after return home.\*

<sup>\*</sup> Sometimes this period may be reduced to two weeks.

- (b) When the patient has been treated at home three successive negative swabs should, when practicable, be obtained as above; and after disinfection of the patient and his rooms and belongings, the same period of subsequent abstention from school attendance as above should be enjoined.
- (2) As regards children living in infected houses.
- 44.—(a) When the patient has been removed to the Isolation Hospital, the teacher and the parent should be instructed to keep all children living in the same house away from school during the next two complete weeks, or even longer, unless these children have been cleared by negative result of bacteriological examination.

This interval is desirable owing to the frequent occurrence of slight cases of diphtheria and "carrier" cases.

(b) When the patient is treated at home, no other child from the same house should attend school while the patient is infectious, nor for four weeks afterwards.\*

#### C. Rules for School Closure.

45.—Although diphtheria, like scarlet fever, and unlike measles, usually spreads comparatively slowly in schools, it is apt to be very persistent, and not infrequently causes serious mortality, especially among children under five years old. For these reasons, when cases of this disease occur in an infant school, there should be no hesitation in excluding children from attendance who are below the age of compulsory school attendance. This latter remark applies also for measles and whooping-cough.

Closure of other classes of the school should be resorted to only after clinical examination, and, where practicable, bacteriological investigation for the detection of diphtheria bacilli in the pharyngeal or nasal mucus of children who have had slight sore throats, and of all other children who have been in contact with diphtheria patients has been made.

The need for protracted exclusion from school of recent diphtheria patients has already been emphasised. The systematic use of these measures should obviate the need for school closure for diphtheria.

#### Other Notifiable Diseases.

46.—Children coming from houses in which have occurred cases of erysipelas or of enteric (typhoid) fever, who are not themselves ill, need not as a rule be excluded from school. Nor is school closure required for either of these diseases, except in the rare instances in which enteric fever is due to some condition directly connected with the school.

<sup>\*</sup> Sometimes this period may be reduced to two weeks.

#### Measles.

#### A. CHARACTERISTICS OF THE DISEASE,

47.—Certain facts need to be borne in mind in adopting preventive measures against measles. In towns the attack-rate is highest in the third, fourth, and fifth years of life, while the death-rate caused by the disease is highest in the second year of life. After the age of five, the death-rate caused by it is relatively very small. These facts clearly indicate the importance of postponing an attack of measles, and of adopting special measures to ensure increased safety for children under five.

Persons seldom contract measles a second time, and, as in populous districts epidemics commonly recur every two or three years, most of the older children are protected against it by having passed through a previous attack. This rule may not apply to a country village, in which epidemics may be absent for a long series of years.

The early infectiousness of measles while the symptoms are only those of a common "cold" is another marked feature of this disease. It is not unlikely that a majority of the total cases are infected by patients in this early stage. The incubation period from infection to the commencement of catarrhal symptoms is 12 to 14 days with fair constancy.

Although measles is very infectious, its infection does not appear to be long-lived, nor to be commonly conveyed by healthy persons. It thus differs from small-pox, scarlet fever, and diphtheria.

But though there is reasonable ground for the opinion that measles is not readily, if at all, conveyed to school by healthy children coming from infected households, it is desirable, particularly in view of the greater fatality of attacks of measles in children under seven years of age, to assume the possibility of such spread by intermediaries in regard to scholars attending the infant school, and to act accordingly as stated below.

#### B. Rules for the Exclusion of Individuals.

- (1) As regards children suffering from the disease.
- 48.—Children attacked by measles should be kept from school for four weeks.
  - (2) As regards other children living in infected houses.
- 49.—In large towns, and in the smaller districts in which the majority of children over seven years of age who are attending public elementary schools have had measles, the practice is frequently adopted, when measles breaks out in a household, of excluding from school attendance only those children of the same household who attend the infant school, and those older children of the same household who have not had measles. These particular children of the same household should be excluded from school until 21 days from the date of onset of the illness of the last patient with measles in the house.

50.—The above procedure can be recommended as the result of experience in large districts. It is a compromise which is obviously not a counsel of perfection, and may need future modification. Even under present conditions, the procedure may need to be modified in accordance with the special circumstances of a particular district, with special reference to its past history as to measles. The schedules for the medical inspection of school children, if kept carefully, will, in course of time, place at the disposal of the Medical Officer of Health and of the School Medical Officer the history of each child as to measles, as well as to other infectious diseases, and they will thus be able to decide, when a case of measles occurs in a particular class, which scholars in that class should, and which should not, be excluded from attendance at school.

#### C. Rules for School Closure.

51.—School closure has probably more frequently taken place on account of epidemics of measles than for any other disease, but as the closure has been commonly deferred until a large proportion of the children are already absent, it has proved useless, in populous districts at least, for the purpose of preventing the spread of the disease.

If measles is introduced into a school, the first crop of secondary cases will occur about 12 days after the original case, and in 12 days more there will be a second crop comprising the majority of the unprotected children. Thus, school closure, as ordinarily practised after the second crop of cases has occurred, fails to prevent an epidemic. In view of this experience, a class closure of short duration after the occurrence of the first case of measles in the class may be substituted, the class being closed on the ninth day after the sickening of the first child, for a period of five days only. After this period, only those who have sickened need be excluded, along with those in the same households who have not had measles or who attend the infant school.

# D. Warnings to Parents.

52.—Warning notices to parents have been found to be valuable in preventing the spread of measles through the attendance at school of infecting children. These warnings should be sent out as soon as measles has appeared in a class, the parents being warned to watch their children and to keep them from school if the slightest symptoms of a "cold" develop during the following three weeks.

The warning notice should also suggest that the parent should at once inform the teacher if these symptoms develop. The teacher can then report the case to the Medical Officer of Health and the School Medical Officer,

# Whooping Cough.

53.—The rules as to exclusion from or closure of school for this disease should be similar to those for measles, except that the

infection of whooping cough probably lasts six weeks, and the children in the house who attend the infant school should therefore be excluded from school for this period—or as long as the cough continues.

### Mumps and Chickenpox.

54.—Three weeks' isolation should be allowed for cases of mumps, and the same period, or until all scabs have disappeared, for cases of chickenpox. Inquiry should be made as to the vaccination of supposed cases of chickenpox.

In chickenpox it is well to exclude from attendance at the infant school all children of the same family as the patient. In mumps the same practice, owing to the long incubation period of this disease, involves much greater interference with school work; and in view of this fact and of the absence of danger to life, the exclusion may be confined to the patient himself.

#### Pulmonary Tuberculosis.

55.—Pulmonary tuberculosis in a recognisable form is seldom a large factor in school life. Where it is known to exist, either through the medical inspection of children or apart from this, the affected scholar should be excluded from school in his own interest, and in that of the school, if the patient has cough with or without expectoration.

#### GENERAL NOTES AS TO PROCEDURE.

56.—In any case in which the Sanitary Authority require the closure of a public elementary school, the notice should be addressed in writing to the Correspondent of the managers, and should state the grounds on which the closure is deemed necessary. It should be signed either by an authorised Officer of the Sanitary Authority in pursuance of their resolution, or by two members of the Sanitary Authority. A copy of the notice should be sent to the School Medical Officer.

All such notices must specify a definite time during which the school is to remain closed; this should be as short a period as can be regarded as sufficing on public health grounds, since a second notice may be given before the expiration of the first, if it should be found necessary to postpone the re-opening of a school.

57.—Reports of Medical Officers of Health to Sanitary Authorities, advising the closure of a school or schools in any district, are to be treated as "special" reports within the meaning of the General Order of the Local Government Board of March 23rd, 1891, and copies of them are required by Article 18 (15) and (16) of that Order to be sent to that Board, and to the County Council. These reports should state the grounds upon which the Medical Officer of Health advocates the closure of the school or schools in preference to the exclusion of particular scholars.

58.—Any directions or authorisations given by the School Medical Officer with respect to the question of excluding individual scholars on the ground that their exclusion is desirable to prevent the spread of disease must be embodied in a certificate signed by him; and a copy of every certificate must be furnished to the Local Education Authority (Article 53 (b) of the Code of 1908). The certificate must be produced if required to any Inspector or Officer of the Board of Education's Medical Department.

ARTHUR NEWSHOLME. GEORGE NEWMAN.



# SECTION IV.

Medical Inspection of School Children in Blackburn during 1910.

# IV.—MEDICAL INSPECTION OF SCHOOL CHILDREN IN BLACKBURN DURING 1910.

The work of Medical Inspection of School Children has been continued in Blackburn during the year 1910 on the same lines as have been described in previous Reports.

I am glad to say that the work has been carried out without any friction whatever.

I wish also to acknowledge my indebtedness to the School Teachers for their willing and valuable co-operation.

The continued co-ordination between the Public Health work and the School Medical work of Blackburn has been of great advantage in dealing with the various Infectious Diseases and in facilitating the administration of these two important classes of work.

As in previous years, the work of Medical Inspection of School Children has been carried out with the object of discovering children suffering from physical defects, so that they might obtain appropriate treatment.

The total number of medical examinations of school children made during the year 1910 was 7,991.

These 7,991 children were composed of the following groups:—

A.	Entrants	4135
В.	Children examined for the second time	968
C.	Leavers (including half-timers)	1696
D.	Higher Grade School children	807
E.	Children referred by School Attendance	
	Officers	372
F.	Bursary and Scholarship Holders	13

It should be noticed that only small numbers of children have been examined in certain age-periods at some of the schools. Caution should therefore be exercised in comparing the different schools. Further comments have not been possible in this respect.

These six groups of children will now be referred to seriatim.

# A.—Newly Admitted Children or "Entrants."

The majority of these 4,135 children were below the age of nine years.

They consisted of 2,002 boys and 2,133 girls.

Table XII. shows these children arranged according to ages, sex, and the numbers examined at the various schools.

Tables XIII. and XIV. contain particulars for males and females respectively.

The average heights have been recorded in inches and centimetres, and the average weights in pounds and kilogrammes.

The defects found amongst these 4,135 entrants appear in Tables XV, and XVI.

Tables XVII. and XVIII show a comparison between the heights and weights of the Blackburn male and female entrants, and the standard of the Anthropometric Committee of the British Association for the Advancement of Science. This standard will be referred to as "The Standard," for abbreviation.

At the yearly age-periods from 3 to 9 years, the Blackburn male entrants were above the standard in height, but were below the standard in weight. At the yearly age-periods from 9 to 12 years, the Blackburn male entrants were below the standard in height and weight.

The Blackburn female entrants showed an increase in average height over the standard in each yearly age-period from 3 to 12 years. Also these female entrants showed an increase in weight above the standard between 3 and 4 years of age. At the other yearly age-periods up to 12 years, the average weights of the Blackburn female entrants were below the standard.

74

TABLE XIII.

# Numbers and age periods of the newly admitted children examined.

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		SCHOOL.	Accrington Road	Audley Range	Bank Top	Cedar Street	Christ Church	Emmanuel	Furthergate	Four Lanes End	Griffin	Holy Trinity	Lower Darwen Council	Maudsley Street	Moss Street	Mill Hill Council	Norfolk Street	Park Road	Sacred Heart	St. Alban's	St. Anne's	St. Andrew's	St. Barnabas'	St. Bartholomew's

TABLE XII.—continued.

Numbers and age periods of the newly admitted children examined.

Total	Fr. Total	20 20 30 30 30 30 30 30 30 30 30 30 30 30 30	2133 4135
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9-10	[편	[-: 10-01010 in :: 14-101]	64
6	M.	[H : H401HH :4 : H0101 :H :	54
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9	M.	:4:-10000-04000400-0	197
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4-5	Tr.	122227468855884410110111111111111111111111111111	321
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3-4	Tr.	::1241006484 :01 :10 :11	155
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	SCHOOL,	St. Gabriel's St. James's, Shear Brow Black-a-Moor Guide St. John's St. Joseph's St. Luke's St. Mary's St. Mathew's St. Mathew's St. Mathew's St. Matherl's St. Matherl's St. Matherl's St. St. Paul's St. Paul's St. Paul's St. Peter's C.E. St. Silas's St. Stephen's St. Stephen's St. Stephen's St. Stephen's St. Thomas's Wensley Fold Whalley Range Witton Infants	Totals

**7**6

### TABLE XIII.

### MALES—Average Heights and Weights.

		3 TO 4 YEARS.	YEARS.			4 TO 5	4 TO 5 YEARS.			5 TO 6	5 TO 6 YEARS.	
SCHOOL.	Average height	Average height	Average weight	Average weight	Average height	Average height	Average weight	Average weight	Average height	Average height	Average weight	Average weight
	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes	inches	metres	spunod .	gr'mmes
	1											
Accrington Road	36.9	93.7	34.3	15.5	39.1	99.3	38.2	17.3	40.4	102.6	39.7	18.0
Audley Range		93.2	33.6	15.2	38.3	97.3	36.7	16.6	41.3	104.9	39.6	17.9
All Saints'		92.0	33.6	15.2	40.5	102.8	39.0	17.7	41.5	105.4	39.9	18.1
Bank Top		2.06	32.4	14.7	:	:	:	:	39.5	100.3	35.3	16.0
Cedar Street		89.4	31.5	14.3	40.5	102.8	38.9	17.6	40.7	103.3	37.5	17.0
Christ Church		90.2	30.7	13.9	38.7	98.3	37.2	16.8	40.2	102.1	38.7	17.5
Emmanuel		93.0	33.8	15.3	38.2	97.0	35.7	16.2	40.5	102.8	39.7	18.0
Furthergate		6.68	32.9	14.9	38.1	2.96	37.3	16.9	39.6	100.6	6.04	18.5
Four Lanes End		96.5	32.7	14.8	40.2	102.1	39.1	17.7	41.2	104.6	39.4	17.8
Griffin		93.2	33.2	15.0	37 7	95.7	9.98	16.6	9.0+	$103 \cdot 1$	39.5	17.9
Holy Trinity		81 -3	27.5	12.5	38.2	97.0	33.8	15.3	40.0	101.6	37.2	16.8
Lower Darwen Council		94.0	33.6	15.2	37.4	95.0	34.1	15.5	45.6	108.2	43.2	19.6
Maudsley Street		93.4	33.9	15.4	38.5	8.76	37.8	17.1	38.9	8.86	36.4	16.5
Moss Street		94.7	34.1	15.5	38.3	97.3	35.5	16.1	9.0+	$103 \cdot 1$	38.0	17.2
Mill Hill Council		94.5	34.3	15.5	39 · 1	86.3	37.9	17.2	40.7	103.3	39.4	17.8
Norfolk Street		98.3	35.5	16.1	37.7	95.7	31.0	14.0	39.9	101.3	37.1	16.8
Park Road		93.2	32.3	14.6	38.9	8.86	35.6	16.1	40.4	102.6	38.3	17.3
Sacred Heart		100.8	39.7	18.0	39.7	100.8	38.7	17.5	41.9	106.4	40.1	18.2
St. Alban's		91.4	31.1	14.1	39.5	9.66	36.6	16.6	39.6	100.6	37.4	16.9
St. Anne's		9.68	31.7	14.4	38.1	2.96	34.5	15.6	39.7	100.8	37.7	17.1
St. Andrew's		2.96	37.8	17.1	39.3	8.66	37.2	16.8	41.1	104.4	39.6	17.9
St. Barnabas'	36.0	91.4	30.6	13.9	38.2	97.0	35.3	16.0	41.6	105.6	40.1	18.2

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TABLE XIII.—continued.
MALES—Average Heights and Weights.

					0	0	0					
		3 TO 4	TO 4 YEARS.			4 TO 5	TO 5 YEARS.			5 TO 6	TO 6 YEARS.	
SCHOOL.	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo.
	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes
St. Bartholomew's	37.4	95.0	32.1	14.5	39.9	101.3	37.9	17.2	40.7	103.3	37.7	17.1
St. Gabriel's		:	:	:	39.0	0.66	41.0	18.6	41.5	105.4	39.5	17.9
St. James', Shear Brow	41.0	104.1	41.0	18.6	40.2	102.1	38.8	17.6	40.7	103.3	37.4	16.9
" B'k-a-M'r		:	:	:	:	:	:	:	40.5	102.8	39.6	17.9
" Guide	39.7	100.8	42.5	19.3	40.5	102.8	39.5	17.9	:	:	:	:
St. John's		93.7	35.7	16.2	38.6	0.86	36.4	16.5	41.3	104.9	38.5	17.4
St. Joseph's		:	:	:	38.1	2.96	37.0	16.8	40.3	102.4	39.7	18.0
St. Ľuke's		9.68	34.6	15.7	38.0	96.5	35.8	16.2	40.0	101 · 6	38.2	17.3
St. Mary's		2.06	31.4	14.2	37.7	95.7	35.5	16.1	39.4	100.1	37.7	17 · 1
St. Matthew's		9.88	30.9	14.0	38.1	96.7	34.7	15.7	41.2	104.6	40.5	18.3
St. Michael's	35.6	90.4	31.7	14.4	39.0	0.66	36.4	16.5	39 · 1	99.3	35.7	16.2
St. Paul's		9.88	34.4	15.6	38.7	98.3	35.7	16.2	40.2	102.1	38.7	17.5
St. Peter's C.E		94.7	35.0	15.8	38.9	8.86	35.5	16.1	6.0+	103.9	39.9	18.1
" R.C		9.68	30.0	13.6	38.6	0.86	34.8	15.7	40.3	102.4	37.0	16.8
St. Silas's		95.2	35.2	16.0	40.0	101.6	38.8	17.6	40.7	103.3	38.3	17.3
St. Stephen's	37.7	95.7	34.8	15.7	40 · 1	101.8	39.6	17.9	40.7	103.3	40.5	18.5
St. Thomas's	36.3	92.5	34.3	15.5	38.4	97.5	36.1	16.4	41.0	104.1	40.0	18.1
Wensley Fold	37.4	95.0	35 · 1	15.9	39.3	8.66	36.4	16.5	. 41 . 1	104.4	41.0	18.6
Whalley Range	35.7	20.06	33.7	15.2	38.8	98.5	37.0	16.8	41.7	105.9	39.6	17.9
Witton Infants	39.5	100.3	39.0	17.7	38.7	98.3	34.7	15.7	39:0	0.66	34.7	15.7
										1		-
Averages	36.7	93.2	33.9	15.4	38.8	98.6	36.7	16.6	40.5	102.9	38.7	17.5

### TABLE XIII.—continued.

### MALES—Average Heights and Weights.

		6 TO 7	YEARS.			7 TO 8	YEARS.	-		8 TO 9	YEARS.	
SCHOOL.	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-
	inches		spunod	gr'mmes	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes
												(
Accrington Road	42	106.9	43.5	19.7	45.7	116.0	49.4	22.4	47.6	120.9	52.1	23.6
Audley Range	44	112.5	45.9	20.8	44.4	112.8	45.2	20.5	47.0	119.4	50.9	$23 \cdot 1$
All Saints'	42	108.2	42.2	19.1	44.8	113.8	46.4	21.0	44 · 7	113.5	45.5	50.6
Bank Top	43	110.2	42.3	19.2	43.8	111.2	43.8	19.9	47.0	119.4	50.4	22.8
Cedar Street	43	110.0	41.9	19.0	45.2	114.8	46.9	21.3	45.5	115.6	46.9	21.3
Christ Church	42	107.9	44.0	19.9	44.7	113.5	46.3	21.0	46.6	118.4	49.5	22.4
Emmanuel	40	102.8	39.0	17.7	44.4	112.8	45.9	8.02	46.4	117.9	52.4	23.8
Furthergate	40	103.6	41.2	18.7	44.4	112.8	46.9	21.3	46.1	117.1	51.3	23.2
Four Lanes End	42	108.7	42.5	19.3	45.4	115.3	47 · 1	21.3	47.4	120.4	54.4	24.7
Griffin	44	112.5	45.2	20.5	44.8	113.8	46.3	21.0	46.3	117.6	48.9	25.5
Holy Trinity	44	112.2	45.0	20.4	45.4	115.3	47 · 1	21.3	45.8	116.3	51.4	23.3
Lower Darwen Council	47.2	119.9	46.7	21.2	46.7	118.6	50.0	22.7	47.8	121 -4	54.1	24.5
Maudsley Street	44	113.0	45.0	20.4	44.5	113.0	46.5	$21 \cdot 1$	45.9	116.6	49.9	22.6
Moss Street	42	108.4	42.5	19.3	45.0	114.3	47.5	21.5	47.8	121 - 4	54.0	24.5
Mill Hill Council	43	109.2	42.6	19.3	44.2	112.2	43.6	19.7	48.4	123.0	52.7	23.9
Norfolk Street	43	109.2	42.5	19.3	6.44	114.0	45.8	20.7	46.3	117.6	50.0	22.7
Park Road	42	109.0	44.9	20.3	6.44	114.0	46.1	50.9	45.7	116.0	47.7	21.6
Sacred Heart		:	:	:	48.5	123.2	46.0	20.8	:	:	:	:
St. Alban's		110.5	44.9	20.3	43.4	110.2	43.6	19.7	43.5	110.5	43.7	19.8
St. Annes		109.7	43.4	19.7	43.6	110.7	43.5	19.7	42.0	119.4	47.5	21.5
St. Andrew's	43.5	110.5	43.5	19.7	44.9	114.0	47.1	21.3	47.6	120.9	52.5	23.8
St. Barnabas'		107.9	44.5	20.2	45.0	114.3	47.6	21.6	48.3	122.7	53.5	24.5
St. Bartholomew's		108.2	42.1	19.1	45.8	116.3	50.5	22.9	45.9	116.6	50.7	23.0

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TABLE XIII.—continued.
MALES—Average Heights and Weights.

					Control of the Contro	The second secon						-
		6 то 7	YEARS.			7 TO 8	YEARS.			8 TO 9	YEARS.	
SCHOOL.	Average height in	Average height	Average weight	Average weight	Average height	Average height in centi-	Average weight	Average weight	Average height	Average height	Average weight	Average weight
	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes	·H	metres	spunod	gr'mmes
St. Gabriel's		:	:	:	44.5	113.0	44 · 7	20.7	46.5	118.1	50.5	22.9
St. James', Shear Brow	43.5	110.5	41.8	18.9	43.4	110.2	43.8	19.8	46.9	119.1	50.9	23.1
" B'k-a-M'r.		:	:	:	46.2	117.4	50.7	23.0	46.5	118.1	49.6	22.5
" Guide …		105.4	41.2	18.7	:	:	:	:	46.3	117.6	50.2	22.7
St. John's		109.2	43.8	19.8	45.4	115.3	48.1	21.8	47 · 1	119.6	50.4	22.8
St. Joseph's		108.7	44.0	19.9	43.9	1111.5	46.6	21.1	45.6	115.8	50.1	22.7
St. Luke's		105.1	43.1	19.5	44.3	112.5	43.9	19.9	47.5	120.6	51.0	$23 \cdot 1$
St. Mary's		107.9	41.0	18.6	43.9	1111.5	43.7	19.8	45.2	114.8	16.0	20.8
St. Matthew's		0.66	41.5	18.8	6.44	114.0	47.4	21.5	48.1	122.2	54.4	24.7
St. Michael's	42.5	107.9	41.1	18.6	44.2	112.2	44.1	20.0	47.0	119.4	48.9	0.00
St. Paul's		107.7	45.1	20.4	44.2	112.2	46.6	21.1	46.2	117.4	51.1	23 · 1
St. Peter's C.E.		107.4	42.7	19.3	42.4	107.7	41.0	18.6	44.2	112.2	50.0	25.7
,, R.C		111.0	44.3	20 · 1	44.0	111.7	44.3	20.1	46.8	118.9	50.6	6. 55
St. Silas's		108.7	43.1	19.5	46.4	117.9	49.1	22.3	48.3	122.7	53.3	24.5
St. Stephen's		110.5	45.5	20.6	45.0	114.3	47.4	21.5	46.7	118.6	48.7	22.1
St. Thomas's	42.1	106.9	42.1	19.1	45.5	115.6	49.1	22.3	44.8	113.8	9.9+	21.4
Wensley Fold	44.6	113.2	45.6	20.7	44.6	113.2	44.3	20 · 1	:	:		:
Whalley Range	39.5	100.3	42.0	19.0	44.7	113.5	43.8	19.8	45.6	115.8	42.6	19.3
Witton Infants	44.3	112.5	43.4	19.7	46.7	118.6	49.1	22.3	47.6	120.9	54.1	24.5
Averages	42.8	108.7	43.2	9.61	44.8	113.8	46.2	6.02	46.5	118.1	50.2	22.7

TABLE XIII.—continued.

MALES—Average Heights and Weights.

		9 то 10	TO 10 YEARS.			10 то 11	YEARS.			11 то 12	2 YEARS.	
SCHOOL.	Average height in	ચ .∷	4	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-
	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes	inches	metres	spunod	gr'mmes
Accrington Road	46.2	117.4	55.0	24.9	48.0	121.9	54.7	24.6	53.5	135.9	65.2	29.6
Audley Range		:	:	:	49.5	125.7	56.3	25.5	55.3	140.5	72.0	32.6
All Saints'	50.1	127.2	55.0	24.9	:	:	:	:	:	:	:	:
Bank Top		121 · 1	51.7	23.4	:	:	:	:	51.0	129.5	$61 \cdot 0$	27.7
Cedar Street		130.8	2.09	27.5	:	:	:	:	52.7	133.8	65.0	29.5
Christ Church		117.6	47.7	21.6	49.5	125.7	59.8	27 - 1	52.2	132.6	71.0	32.2
Emmanuel		123.2	57.0	25.8	52.5	133.3	64.0	29.0	54.5	138.4	81.0	36.7
Furthergate		:	:	:	52.5	133 · 3	71.2	32.3	48.6	123.4	60.2	27.3
Four Lanes End	47.7	121.1	56.5	25.6	:	:	:	:	:	:	:	:
Griffin		123.7	56.4	25.6	48.7	123.7	53.5	24.3	55.7	141.5	72.7	33.0
Holy Trinity		:	:	:	:	:	:	:	:	:	:	:
Lower Darwen Council	48.2	122.4	54.7	24.8	59.0	149.8	94.5	42.7	51.1	129.8	63.0	28.6
Maudsley Street		123.2	57.0	25.8	50.5	128.2	68.1	30.9	47.7	121.2	55.0	24.9
Moss Street		:	:	:	49.5	125.7	54.0	24.5	:	:	:	:
Mill Hill Council		125.2	58.5	26.5	50.7	128.8	61.7	28.0	52.5	133.3	0.99	29.9
Nortolk Street	:	:	:	:	47.0	119.4	55.7	25.2	:	:	:	:
Park Road		119.4	52.2	23.7	51.2	130.0	52.5	23.8	49.5	125.7	54.0	24.5
Sacred Heart	:	:	:	:	51.7	131.3	0.+9	29.0	:	:	:	:
St. Alban's		:	:	:	50.0	127.0	56.1	25.4	:	:	:	:
St. Anne's	9.09	128.5	60.3	27.3	51.0	129.5	66.5	30.1	:	:	:	:
St. Andrew's		:	:	:	:	:	:	:	:	:	:	:
St. Barnabas'	47.2	119.9	53.1	24.1	50.0	127.0	61.6	27.9	53.2	135.1	74.7	33.9
St. Bartholomew's		116.1	50.0	22.7	49.2	125.0	58.2	26.4	:	:	:	:

TABLE XIII.—continued.

MALES—Average Heights and Weights.

		9 то 10	TO 10 YEARS.			10 to 11	YEARS.	-		11 ro 15	TO 12 YEARS.	
SCHOOL.	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes
St. Gabriel's	47.9	119.9	6.85	96.4	:	:	:	:	:	:	:	:
B'k-a-M'r.	:	:	3 :	H :	: :	: :	: :	: :	: :	: :	: :	: :
" Guide	:	:	:	:	:	:	:	:	52.1	132.3	0.99	29.9
St. John's	53.0	134.6	67.2	30.5	51.1	129.8	59.9	27.2	52.4	133.1	0.89	30.8
St. Joseph's	47.2	119.9	54.6	24.7	:	:	:	:	51.7	131.3	67.1	30.4
St. Luke's	48.5	123.2	53.8	24.4	:	:	:	:	47.6	120.9	48.7	22.1
St. Mary's	47.7	$121 \cdot 1$	50.0	22.7	:	:	:	:	54.0	137.1	78.7	35.7
St. Matthew's	47.5	120.6	48.5	22.0	49.2	125.0	58.0	26.3	52.8	134.1	71 -3	32.3
St. Michael's	: (	:	:	:	:	:	:	:	:	:	:	:
St. Paul's	48.9	124.2	6.09	27.6	51.6	131.0	66.3	30 · 1	52.5	133.3	71.4	32.4
St. Peter's C.E.	:	:	:	:	:	:	:	:	52.5	133.3	63.0	28.6
C+ C:13.6.		: 01	: 0	1:	: :		: 1	: -	: 0	: 6		: 6
C+ Ctorbon's	7.4.4	101.3	40.0	19.7	1.64	7.00.1	0.40	0.47	5.75	132.8	1.89	30.9
St. Thomas's	46.6	1.12.1	1.10	7.00	2.10	130.6	0.09	7.7.7	0.70	152.1	0.40	23.0
Wenslev Fold			0	1	* 10	0.001	0.00	0.01	0.00	111	0.10	1.11
Whalley Range	51.0	129.5	62.2	28.2		: :	: :	: :	: :	: :	: :	: :
Witton Infants	:	:	:	:	:	:	:	:	:	:	:	:
Averages	48.2	122.4	54.8	24.8	50.6	128.5	61.6	27.9	51.9	131.8	66.1	30.0
			,					9				

## TABLE XIV. FEMALES—Average Heights and Weights.

	Average weight in kilo- gr'mmes	7.7.1 6.6.2 6.6.3 6.	15.7 17.1 18.0 17.5
TO 6 YEARS.	Average weight in pounds	33 33 33 33 33 33 33 33 33 33 33 33 33	34.7 37.7 39.7 38.6
5 ro 6	Average height in centimetres	103 - 100 -	95.2 102.4 105.1 104.4
	Average height in inches	84 83 95 25 45 85 85 85 85 85 85 85 85 85 85 85 85 85	37.5 40.3 41.4 41.1
	Average weight in kilogr'mmes	20010000000000000000000000000000000000	14.9 15.8 16.3 16.5
5 YEARS.	Average weight in pounds	33 33 33 33 33 33 33 33 33 33 33 33 33	32.9 34.9 36.0 36.4
4 TO 5	Average height in centimetres	99999999999999999999999999999999999999	93.2 96.5 97.5
	Average height in inches	33333333333333333333333333333333333333	38.0 38.0 39.1
	Average weight in kilo- gr'mmes	\$\frac{1}{8}\$\frac	13.9
YEARS.	Average weight in pounds	33.32.33.33.33.33.33.33.33.33.33.33.33.3	320.33333333333333333333333333333333333
3 TO 4 YEARS	Average height in centimetres	88 88 93 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90.9 93.0 93.0
	Average height in inches		32.8 36.6 36.6 36.6
	SCHOOL.	Accrington Road Audley Range All Saint's Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffin Holy Trinity Lower Darwen Council Maudsley Street Mill Hill Council Norfolk Street Moss Street Street Annal Hall Council Norfolk Street Park Road Sacred Heart Cet Albery	St. Annan's St. Anne's St. Andrew's St. Barnabas' St. Bartholomew's

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### TABLE XIV.—continued.

## FEMALES—Average Heights and Weights.

		3 TO 4	TO 4 YEARS.			4 TO 5	TO 5 YEARS.			5 TO 6	TO 6 YEARS.	
SCHOOL.	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes
St. Gabriel's	. :	:			37.0	0.+6	34.2	15.5	39.7	100.8	34:7	15.7
St. James', Shear Brow	:	:	:	:	39 · 1	99.3	37.0	16.8	40.7	103.3	38.5	17.4
" B'k-a-M'r	35.2	89.4	31.0	14.0	39.4	100.1	35.9	16.3	43.2	109.7	40.5	18.3
Guide	37.3	94.7	34.2	15.5	37.8	0.96	35.8	16.2	45.6	108.2	41.4	18.8
St. John's	36.4	92.4	32.0	14.5	37.8	0.96	34.7	15.7	40.8	103.6	38.5	17.4
St. Joseph's	35.2	89.4	35.0	15.8	39.3	8.66	38.7	17.5	39 · 7	100.8	38.6	17.5
St. Luke's	35.7	2.06	31.5	14.3	37.6	95.5	34.5	15.6	41.0	104.1	39.7	18.0
St. Mary's	35.3	9.68	30.8	13.9	36.8	93.4	32.3	14.6	41.7	105.9	+0+	18.3
St. Matthew's	36.2	95.0	31.7	14.4	38.0	96.5	34.2	15.5	40.0	101.6	36.2	16.4
St. Michael's	35.7	20.06	31 -4	14.2	37.9	96.2	34.1	15.5	41.5	105.4	38.5	17.4
St. Paul's	35.4	6.68	29.5	13.3	37.5	95.2	35.8	16.2	38.9	88.86	35.9	16.3
St. Peter's C.E.	:	:	:	:	37.2	94.5	34.5	15.6	38.2	97.0	33.3	15.1
", R.C.	35.0	88.9	30 · 3	13.7	37.4	95.0	32.5	14.7	40.1	101.8	36.5	16.4
St. Silas's	36.7	93.2	31.3	14.2	38.6	0.86	35.7	16.2	41.5	105.4	38.6	17.5
St. Stephen's	:	:	:	:	38.7	98.3	35.5	16.1	41.0	104.1	39.1	17.7
St. Thomas's	36.8	93.4	33.6	15.2	39 · 1	99.3	37.5	17.0	39.5	100.3	36.5	16.5
Wensley Fold	36.4	92.4	33.0	15.0	37.5	95.2	33.8	15.3	39.4	1000-1	35.4	16.0
Whalley Range	:	:	:	:	38.9	8.86	37.5	17.0	40.0	101.6	38.2	17.3
Witton Infants	35.2	89 · 4	28.5	12.9	39.2	9.66	35.7	16.2	41.8	106.2	45.8	19.4
Averages	35.7	60.7	31.4	14.2	38.1	8.96	34.9	15.8	40.4	102.6	37.8	17.1

TABLE XIV.—continued. FEMALES—Average Heights and Weights.

		6 TO 7	7 YEARS.			7 TO 8	YEARS.			8 TO 9	YEARS.	
SCHOOL.	Average height in	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes
							!			0	0	0 60
Accrington Road	43.8	111.2	42.8	19.4	45.9	116.6	47.8	21.7	47.2	119.9	0.75	9.00
Audley Range	39.7	100.8	37.3	16.9	45.3	115.0	47.7	21.6	46.9	119.1	0.00	7.77
All Saints'	43.6	110.7	42.7	19.3	45.4	115.3	48.4	21.9	45.1	114.5	8.74	19.4
Bank Top	43.2	109.7	39.5	17.9	44.7	113.5	45.2	20.5	45.3	115.0	45.3	20.5
Cedar Street	43.2	109.7	41.1	18.6	46.1	117.1	49.1	22.3	45.6	115.8	42.3	19.2
Christ Church	41.2	104.6	39.0	17.6	44.6	113.2	45.6	20.7	46.3	117.6	49.3	22.3
Emmannel	41.6	105.6	40.8	18.5	44.0	1111.8	44.2	20.0	46.9	119.1	8.6+	22.6
Furthergate	41.8	106.2	40.6	18.4	45.0	114.3	47.0	21.3	45.6	115.8	50.4	22.8
Four Lanes End	41.5	105.4	34.0	15.4	43.7	1111.0	42.7	19.3	46.1	117.1	48.3	21.9
Griffin	44.5	113.0	44.8	20.3	43.9	1111.5	43.9	19.9	46.9	119.1	49.2	22.3
Holv Trinity	42.6	108.2	41.7	18.9	44.4	112.8	45.7	20.7	44.5	113.0	45.9	20.8
Lower Darwen Council	44.2	112.2	44.2	20.0	45.3	115.0	42.5	19.3	47.6	120.9	51.5	23.3
Maudslev Street	44.4	112.8	45.7	20.7	44.7	113.5	46.5	21.1	46.2	117.4	48.4	21.9
Moss Street	43.5	110.5	42.8	19.4	45.2	114.8	46.8	21.2	43.8	111.2	43.2	19.6
Mill Hill Council	42.8	108.7	38.8	17.6	44.0	1111.8	43.9	19.9	47.9	121.7	52.3	23.7
Norfolk Street	41.0	104.1	40.9	18.5	45.2	114.8	46.9	21.3	46.5	118.1	48.9	22.2
Park Road	43.5	110.5	43.8	19.8	43.6	110.7	42.2	19.1	47.3	120.2	48.5	22.0
Sacred Heart	42.7	108.4	40.1	18.2	46.2	117.4	47.3	21.4	:	:	:	
St. Alban's	42.0	106.6	39.6	17.9	44.7	113.5	46.3	21.0	45.1	114.5	47.5	
St. Anne's	42.4	107.7	41.8	18.9	43.2	109.7	42.0	19.0	44.7	113.5	44.7	
St. Andrew's	44.1	112.0	44.2	20.0	44.6	113.2	44.3	20.1	47.9	121.7	50.1	22.7
St. Barnabas'	41.8	106.2	40.2	18.2	45.4	115.3	47.1	21.3	45.9	116.6	47.6	
St. Bartholomew's	44.0	111.8	44.9	$20 \cdot 3$	45.3	115.0	48.8	22.1	46.1	117.1	45.8	

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TABLE XIV.—continued.
FEMALES—Average Heights and Weights.

		6 TO 7	YEARS.			7 TO 8	8 YEARS.			8 TO 9	TO 9 YEARS.	Ì
SCHOOL.	Average height in	Average height in centi-	l as	Average weight in kilo-	Average height in	Average height in centi-	Average weight in	Average weight in kilo-	Average height in	Average height in centi-	Average weight	Average weight in Eilo-
	ınches	metres	spunod	gr'mmes	inches	metres	bounds	gr'mmes	inches	metres	spunod	gr'mmes
St. Gabriel's					0.04	-	5		,			
St James' Shear Brown		:	:	:	7.04	11/.4	46.0	71.7	46 · 1	117.1	47.7	21.6
D'I. Janics, Sucai DiOw			: 0	: ,	76.2	117.4	49.3	22.3	45.8	116.3	47.1	21.3
, D K-a-M I		103.3	0.65	17.7	47.5	120.6	49.7	22.5	47.8	121.4	51.7	23.4
C+ Toba's	7.04	116.0	9.7.4	21.3	45.9	116.6	†·8+	21.9	45.5	115.6	48.6	22.0
St. Joint S	47.0 0.0	108.7	41.6	38.8	44.6	113.2	45.4	20.6	6.9+	119.1	50.7	23.0
3t. Joseph s	42.2	107.2	41.7	18.9	43.8	111.2	44.8	20.3	45.0	114.3	47.7	21.6
St. Luke s	41.3	104.9	40.5	18.3	44.6	113.2	14 - 4	20.1	45.7	116.0	46.1	6.03
St. Mat y S	2.5	109.7	42.7	19.3	43.9	1111.5	43.3	19.6	45.8	116.3	45.4	20.6
St. Matthews	43.7	0.111	43.5	19.7	43.8	111.2	44.6	20.5	46.6	118.4	50.6	6.66
St. Michael S	42.3	112.5	44.0	19.9	43.9	1111.5	42.3	19.2	43.8	111.2	+1+	× × ×
St. 1 dul 5	44.1	0.211	47.0	21.3	44.7	113.5	16.4	21.0	45.6	115.8	49.8	22.6
St. Fetel S C.E.	7.04	109.7	40.8	18.5	41.9	114.0	44.5	20.5	49.0	124.4	51.0	23.1
C+ C:10.0'	0.77	107.4	2.2.5	19.1	42.2	112.2	43.4	19.7	9.44	113.2	4.4.2	20.0
C+ C+colony	.77	108.4	41.0	18.6	45.5	115.6	†8.†	21.9	47.8	121 -4	53.5	24.3
St. Stephen S	6.14	106.4	40.8	18.5	44.1	112.0	42.3	19.2	16.4	117.9	18.84 8.84	1.00
West Filt	42.8	108.7	42.6	19.3	44.8	113.8	46.8	21.2	45.8	116.3	47.4	5.15
wellsley Fold	41.1	104.4	40.3	18.3	44.7	113.5	44.5	20.5				i i
whalley Kange	:	:	:	:	50.2	127.5	56.5	25.6				0 *
Witton Infants	43.5	110.5	41.5	18.8	45.4	115.3	11.7	6.06		•	•	:
					;		, , ,	1	:	:	:	:
Averages	42.8	108.7	41.7	18.9	44.9	114.1	45.9	20.8	46.1	117.1	48.0	21.7
								_		_		

TABLE XIV.—continued.

## FEMALES—Average Heights and Weights.

		9 то 10	TO 10 YEARS.			10 to 11	YEARS.			11 TO 1	11 TO 12 YEARS.	
SCHOOL.	Average height	Average	Average	Average	Average height	Average height	Average weight	Average	Average height	Average height	Average weight	Average weight
	in	in centi-		in kilo-		in centi-	in	in kilo-	in	in centi-	in	in kilo-
	HICHES	menes	bounds	gi illines	IIICHES	menes	pounds	gi illinesi	menes	samani	bounds	gi illilles
Accrington Road	·	114.3	46.2	20.9	53.5	135.9	0.99	29.9	52.2	132.6	57.5	26.1
Audley Range	46.3	117.6	50.3	22.8	48.5	123.2	53.6	24.3	:	:	:	:
All Saints'		:	:	:	51.0	129.5	63.5	28.8	:	:	:	:
Bank Top	45.7	116.1	45.0	20.4	47.1	119.6	50.7	23.0	48.5	123.2	62.7	28.4
Cedar Street		:	:	:	51.7	131.3	$67 \cdot 2$	30.5	52.0	132.1	63.7	28.9
Christ Church	46.1	117.1	48.0	21.8	:	:	:	:	52.5	133.3	72.0	32.6
Emmanuel		122.4	54.3	24.6	48.0	121.9	55.2	25.0	50.5	128.2	62.2	28.2
Furthergate		119.4	56.2	25.5	49.2	125.0	54.7	24.8	51.1	129.8	64.3	29.1
Four Lanes End		138.6	75.5	34.2	50.2	127.5	57.6	26.1	:	:	:	:
Griffin		127.5	59.7	27.1	52.0	132.1	57.5	26.1	54.3	137.9	65.9	29.9
Holy Trinity	:	:	:	:	:	:	:	:	:	:	:	:
Lower Darwen Council		:	:	:	51.0	129.5	42.0	19.0	:	:	÷	:
Maudsley Street	47.5	120.6	55.1	25.0	49.5	125.7	58.0	26.3	54.0	137.1	68.2	90.9
Moss Street		:	:	:	47.0	119.4	53.5	24.3	:	:	· :	:
Mill Hill Council	47.6	120.9	48.8	22.1	51.2	130.0	56.2	25.5	53.4	135.6	67.5	90.08
Norfolk Street		129.5	56.7	25.7	48.7	123.7	55.5	25.1	53.7	136.4	75.2	34.1
Park Road		:	:	÷	49.5	125.7	51.0	23.1	:	:	:	:
Sacred Heart		123.4	55.7	25.3	50.7	128.8	61.5	27.9	:	:	:	:
St. Alban's		112.0	45.6	20.7	47.8	121.4	51.3	23.2	8.64	126.5	59.7	27.1
St. Anne's		121 · 1	53.2	24.1	:	:	:	:	53.1	134.9	66.2	30.0
St. Andrew's		:	:	:	;	:	:	:	54.0	137.1	74.0	33.5
St. Barnabas'	50.1	127.2	59.9	27.2	51.2	130.0	63.9	29.0	54.0	137.1	83.0	37.6
St. Bartholomew's		131.0	65.1	29.5	52.8	134.1	71.0	32.2	50.5	$128 \cdot 2$	57.3	26.0

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TABLE XIV.—continued. FEMALES—Average Heights and Weights.

		9 TO 10	TO 10 YEARS.			10 то 11	YEARS.			11 TO 15	12 YEARS.	
SCHOOL.	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes
St. Gabriel's	: c	: u	: c	: 6	50.2	127.5	60.5	27.4	:	:	:	:
St. James, Shear Brow. B'k-a-M'r		6.001	c. oc	c. 07	c. Te	0.001	c. 00	1.00	: :	: :	: :	: :
Guide	: 0	: 0	: 6	::6	: 0		: 0	: 1	44.0	111.7	52.0	23.6
St. John S St. Ioseph's	49.0	124.4	48.7	22.3	49.6	125.5	96.3 60.1	27.3	53.2	135.2	66.5	†. 67 30 · 0
St. Ľukė's	47.2	119.9	51.6	23.4	:	:	:	:	52.6	133.6	0.99	29.9
St. Mary's	47.2	119.9	54.5	24.7	50.5	128.2	55.7	25.2	:	:	:	:
St. Matthew's	45.2	114.8	45.0	20.4	:	:	:	:	55.0	139.7	74.2	33.6
St. Michael's	:		:		:			: ;	: 1		:	
St. Paul's	48.3	122.7	52.8	23.9	51.6	131.0	62.3	28.2	52.1	132.3	9.99	$\frac{30.2}{20}$
St. Peter's C.E.	:	:	:	:	:	:	:	:	49.3	125.2	63 • 1	28.e
K.C	:	:	:	:	: - !	1001	1	00	0.70	133.3	0.00	30.75
St. Stephen's	47.2	6.611	47.9	21.7	53.0	134.6	56.7	25.7	52.0	132.1	68.7	31.1
St. Thomas's	47.2	119.9	48.2	21.8	:	:	:	:	52.3	132.8	9.99	25.6
Wensley Fold	::0		::	00		101		0.00		1001	10:01	2
Witton Infants	0.04	1.771	1.64	C. 77	0.0+	6.171	0.0*	5.07	1.01	1.071	1.00	0.07
Averages	48.1	122.2	53.2	24 · 1	50.3	127.7	58.0	26.3	51.9	131.8	65.5	29.7
				a								-

TABLE XV.

Conditions, Defects, etc., found in the 4135 newly admitted children examined.

Ear Dis.	Defective.		_	: '	_	: '		<b>-</b>	:	:	01	:	:	:	_	61	:	_		က	01	က	:
Dis. Ext. E	.bood.	104	001	/6	83	87	133	127	113	53	137	79	57	109	109	120	69	115	28	140	166	85	85
Eye Dis.	Defective.	4.0	71 (	n (	3	:	ıo 1	0,		_	က	<b>C1</b>	:	က	2	7	21	9	:	_	27		7
Ext.	Good.	101	cer	†c	<u>8</u>	87	135	123	112	52	136	77	57	106	108	115	67	110	53	136	166	84	78
& Thr't.	Defective.	10	<i>s</i> 0	က <u>(</u>	13	=======================================	89	57	16	6	19	10	ıc	12	15	21	6	23	4	25	17	20	10
Nose 5	Good.	95	140	Ť,	7]	92	72	77	97	++	120	69	52	97	95	101	09	93	25	118	151	65	75
	Bad.	48	+/	77	43	35	300	250	33	27	99	30	27	52	33	61	39	+3	6	56	69	11	43
Teeth.	Medium.	35	10	53	23	29	75	00	40		51	59	19	31	47	43	18	47	14	49	61	27	28
	Good.	22	25	133	12	23	30	27	34	12	22	20	11	26	30	18	12	26	9	38	38	17	1
SS.	B <sup>g</sup> q.	9	1	9	20	က	0.0	00 (	12	:	†	11	_	10	S	11	7	14	က	20	42	7	4
Cleanliness.	Medium.	41	000	33	46	43	71	21	73	13	40	35	18	56	86	57	24	59	က	93	68	42	38
Clea	Good.	58	25	200	20	41	59	200	28	0+	85	33	32	43	16	54	1+	43	23	30	37	36	43
	Bad.	: 7	<u> </u>	· co	4		,—(	27 1	ıo	:		90	:	01	1		4	_	:	ro	10	_	:
Footgear.	Medium.	∞ -	T T	g ;	14	_	33	37	14	က	17	14	_	14	11	14	9	16	_	35	45	Ξ	3
Foc	Good,	76	C+1	45	99	79	106	83	94	50	121	57	99	93	86	107	59	66	28	103	113	73	82
50	Bad.	-	:	4	S		ro.	m :	6	_		$\infty$	:	6	13	61		_	:	25	21	-	7
Clothing.	Medium.	56	106	46	54	55	104	110	84	23	74	57	56	80	80	63	30	84	7	91	125	52	63
C	Good.	84.	Te	7	25	31	31	15	20	59	64	14	31	20	17	57	38	25	22	27	22	32	20
ü.	Bad.	:	:	:	:	:	ro	13	:	:	:	:	:	:	_	:	:						:
Nutrition	Medium.	ro d	3	9	15	21	57	25	6	ro	26	6	rO	11	28	10	ıO	16	2	567	27	i =	6
Nu	Good.	100	138	21	69	99	78	63	104	48	113	70	52	86	81	112	64	100	27	1 4	[41	74	76
	SCHOOL.	Accrington Road	Audley Kange138	All Saints'	Bank Top	Cedar Street	Christ Church		Furthergate	Four Lanes End						Mill Hill Council		Park Road.	Sacred Heart	St. Alban's	St. Anne's	St. Andrew's	-

Conditions, Defects, etc., found in the 4135 newly admitted children examined. TABLE XV.—continued.

Ear Dis.	Defective.	- :- : :-::::- : :- : :	41
Ext	Good.	31 31 31 31 32 33 33 33 34 45 103 103 103 103 103 103 103 103 103 103	4094
Eye Dis.	Defective.	ω : : : -αω44απν : αυα44σι :	128
Ext.	Good.	113 31 118 1195 1105 1105 1113 1113 1113 1113 1113 111	4007
& Thr't.	Defective.	66 68 98 98 98 98 98 98 98 98 98 98 98 98 98	622
Nose 8	Good.	100 100 113 113 113 113 113 113 113 113	1435 1847 3513
	Bad.	00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1847
Teeth.	Medium.	337 116 16 6 8 8 9 9 9 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	435
Ĭ	Good.	17. 17. 17. 17. 17. 17. 17. 17. 17. 17.	853
SS.	Bad.	11 :1.002121382472 :88848	
Cleanliness.	Medium.	113 113 113 110 110 110 110 110 110 110	9143
Clea	Good.	22.22 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1851 1914 370
H	Bad.	: : : : : : : : : : : : : : : : : : :	88
Footgear.	Medium.	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	593
Foc	Good,	109 109 128 130 128 128 128 128 128 128 129 129 129 129 129 129 129 129 129 129	34545
200	Bad.	2 : :- :-=528245778 :888-1 :	
Clothing.	Medium.	65 19 10 110 112 1121 1121 1123 54 54 88 92 65 65 65 77 77 77 77	2719
ŏ	Good.	112 12 12 12 13 13 13 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	1220 2719 196
n.	Bad.	: :- : :- :-4- : : : :- : : : :	28
itrition.	Medium.	22 5 5 7 7 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	630
Nu	Good.	107 233 242 253 266 1179 95 95 95 95 95 110 110 110 110 110 110 110 110 110 11	3477
	SCHOOL.	St. Bartholomew's St. Gabriel's St. James', Shear Brow " B'k-a-M'r " Guide St. John's St. Joseph's St. Luke's St. Mary's St. Marthew's St. Matthew's St. Michael's St. Richael's St.	

TABLE XVI.

Conditions, etc., found amongst the 4,135 newly-admitted

Children examined.

	Good.	Medium.	Bad.
Nutrition	Percentage. 84·0	Percentage. 15·2	Percentage.
Clothing	29.5	65 · 7	4 · 7
Footgear	83.5	14.3	$2 \cdot 2$
Cleanliness	44.7	46.3	8.9
Teeth	20.6	34 · 7	44.6

	Good.	Defective
-	Percentage.	Percentage.
Nose and Throat	84.9	15.0
External Eye Defects	96.9	3.0
External Ear Defects (Otorrhœa)	99.0	0.9

Amongst the 4,135 newly admitted children the following defects were found:—

Enlarged Neck Glands	29.6 pe	r cent.
Greatly Enlarged Neck Glands	$3 \cdot 4$	"
Tonsils	$10 \cdot 4$	,,
Dirty and Sore Heads	$7 \cdot 6$	,,
All Eye Defects	3.9	,,
Skin	$3 \cdot 5$	,,
Speech Defects	$2 \cdot 3$	,,
Anæmia	$2 \cdot 3$	,,,
Tonsils and Adenoids	1.8	,,
Adenoids	1.8	,,
All Ear Defects	$1 \cdot 4$	"
Rickets	$1 \cdot 1$	,,
Circulatory Diseases	0.9	,,
Other Conditions of Nose and Throat	0.8	,,
Respiratory Diseases	$0 \cdot 7$	,,
Tubercular Diseases	$0 \cdot 2$	,,
Developmental Defects	0.07	,,
Infectious Diseases	$0 \cdot 02$	,,
Nervous Diseases	$0 \cdot 02$	,,
Other Diseases	0.09	,,

### TABLE XVII.—Males (Entrants).

Tenant remains the fill of the first own The		A	VERAGE	HEIG	нт.	A	VERAGE	WEIGI	HT.
Ages.	d.	Incl	hes.	Centir	netres.	Pou	nds.	Kilogi	rammes
	No. Examined.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.
3- 4	186	36 · 7	36.2	93.2	92.0	33.9	35.0	15 · 4	15.9
4- 5	307	38.8	37 · 6	98.6	95.5	36.7	38.6	16.6	17.5
5-6	363	40.5	39 · 7	102 • 9	100 · 8	38.7	40.9	17.5	18.5
6- 7	197	42.8	41.9	108.7	106 • 4	43.2	44.6	19.6	20.2
7 8	511	42.8	44.6	113.8	113.3	46.2	50 · 7	20.9	23.0
8- 9	286	46.5	46 · 4	118 · 1	117.9	50.2	54.3	22.7	24.6
9-10	54	48.2	48.8	122 · 4	123 · 9	54.8	58.3	24.8	26 · 4 ]
10-11	47	50.6	50 · 7	128.5	128.8	61 · 6	64.0	27.9	29.0
11-12	51	51.9	52.6	131 · 8	133.6	66 · 1	69 • 0	30.0	31.3

### Therefore

Males at 3-4 were 0.5 inches above the standard in height.

,,	,,	1·1 pounds below	,,	,,	weight.
,,	4- 5 were	$1 \cdot 2$ inches above	,,	,,	height.
,,	,,	1.9 pounds below	,,	,,	weight.
,,	5– 6 were	0.8 inches above	,,	,,	height.
,,	, ,,	$2 \cdot 2$ pounds below	,,	,,	weight.
,,	6– 7 were	0.9 inches above	,,	,,	height.
,,	,,	1.4 pounds below	,,	,,	weight.
,,	7– 8 were	$0\cdot 2$ inches above	,,	,,	height.
,,	,,	$4 \cdot 5$ pounds below	,,	,,	weight.
,,	8– 9 were	$0 \cdot 1$ inches above	,,	,,	height.
,,	,,	$4 \cdot 1$ pounds below	,,	,,	weight.
,,	9–10 were	0.6 inches below	,,	,,	height.
,,	,,	3.5 pounds below	,,	,,	weight.
,,	10–11 were	$0 \cdot 1$ inches below	,,	,,	height.
,,	,,	2·4 pounds below	,,	,,	weight.
,,	11–12 were	0.7 inches below	,,	,,	height.
,,	,,	2.9 pounds below	,,	"	weight.

### TABLE XVIII.—Females (Entrants).

		A	VERAGE	HEIGH	IT.	Ar	VERAGE	WEIGH	IT.
Ages.	d.	Incl	nes.	Centin	netres.	Pou	nds.	Kilogr	ammes
	No. Examined.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.
3- 4	155	35 · 7	35.3	90.7	89 · 7	31 · 4	30.8	14 · 2	13.9
4- 5	321	38 · 1	37.3	96.8	94.8	34.9	35.8	15.8	16 · 2
5- 6	364	40 • 4	39.7	102.6	100 · 8	37.8	40.3	17 · 1	18.3
6- 7	210	42.8	41.8	108 · 7	106 · 2	41.7	43 · 1	18.9	19.5
7-8	584	44.9	43.5	114 · 1	110.5	45.9	46.2	20.8	20.9
8- 9	323	46 · 1	45.5	117 · 1	113.0	48.0	51.8	21.7	23.5
9–10	64	48 · 1	47.3	122 · 2	120 · 2	53 · 2	55.2	24 · 1	25.0
10-11	55	50.3	48.9	127 · 7	124 · 2	58.0	60.5	26.3	27 · 4
11–12	57	51.9	51.5	131 · 8	130 · 8	65.5	66.8	29 · 7	30.3

### Therefore

Females at 3-4 were 0.4 inches above the standard in height.

					0
,,	,,	0.6 pounds above	,,	,,	weight.
,,	4– 5 were	0.8 inches above	,,	,,	height.
,,	,,	0.9 pounds below	,,	,,	weight.
,,	5– 6 were	0.7 inches above	,,	,,	height.
,,	,,	2.5 pounds below	,,	,,	weight.
,,	6– 7 were	1.0 inches above	,,	,,	height.
,,	,,	1.4 pounds below	,,	,,	weight.
,,	7– 8 were	1.4 inches above	,,	,,	height.
,,	,,	0.3 pounds below	,,	,,	weight.
,,	8– 9 were	0.6 inches above	,,	,,	height.
,,	,,	3.8 pounds below	,,	,,	weight.
,,	9–10 were	0.8 inches above	,,	,,	height.
,,	,,	$2 \cdot 0$ pounds below	,,	,,	weight.
"	10–11 were	1.4 inches above	,,	,,	height.
,,	,,	2.5 pounds below	,,	,,	weight.
"	11–12 were	0.4 inches above	,,	,,	height.
"	"	1.3 pounds below	,,	22	weight.
					_



### B.—CHILDREN EXAMINED FOR THE SECOND TIME.

This Group includes those children who were medically examined for the First Time in the year 1908.

Numbers and Age Periods of Children examined for the Second time.

TABLE XIX.—Continued.

Numbers and Age Periods of Children examined for the Second time.

	Total	16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	968
tal	뇬	11 0 0 0 7 1 1 2 2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1	504
Total	M.	. 55 1 2 1 2 1 2 2 1 1 2 4 1 2 5 1 1 2	464
-13	Ţ.	::-::::::::::::::::::::::::::::::::::	ဗ
12–13	M.	: ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	12
-12	F.		21
11–12	M.		T
-11	н.	:::::::::::::::::::::::::::::::::::::::	o
10-11	M.		-
01	F,		_
9-10	M.		7
6.	Н	[- :-40   0-  -  -0000	47
8-9	M.	[0] [ [0] [ [0] 4 [ [0] 8 ] [ [ [] [	4/
φ.	Τ̈́	0.0000000000000000000000000000000000000	644
7-8	M.	8 :: 1 2 0 0 4 1 1 1 0 0 0 2 1 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 1 1 0 1 1 0 1	407
8	SCHOOL.	St. Gabriel's  St. James's, Shear Brow  " Guide  St. John's  St. John's  St. Luke's  St. Matthew's  St. Matthew's  St. Matthew's  St. Paul's  St. Peter's C.E.  St. Stephen's  St. Stephen's  St. Thomas's  St. Thomas's  Wensley Fold  Whalley Range	Totals

TABLE XX.

# Males.—Average Heights and Weights.—Second Examination.

	Average weight in kilo- gr'mmes	:	: :	:	:	:	:	:	÷	:	:	:	÷	:	:	: 6	50.3	:	:	:	:	:	:
YEARS.	Average weight in pounds	:	: :	:	:	:	:	:	:	:	:	:	:	:	:	: 0	46.2	:	:	:	:	:	:
9 TO 10 YEARS.	Average height in centi- metres	:	: :	:	:	:	:	:	:	:	:	:	:	:	:	: (	109.7	:	:	:	:	:	:
	Average height in inches	:	::	:	:	:	:	:	:	:	:	:	:	:	:	:	43.2	:	:	:	:	:	:
	Average weight in kilo- gr'mmes	22.7	24.2	:	:	19.9	25.7	: 0	6. 87	:	21.8	:	24.3	:	20.3	19.3	:	:	21.4	:	:	23.6	21.8
YEARS.	Average weight in pounds	50.0	53.5	:	:	44.0	26.7	: (	27.8	:	48.0	:	53.7	:	44.8	42.5	:	:	47.2	:	:	52.0	48.0
8 TO 9	Average height in centi- metres	116.0	118.9	:	:	111.0	122.4	:	120.6	:	116.8	:	121.9	:	110.5	113.0	:	:	111.8	:	:	118.9	113.2
	Average height in inches	45.7	46.8	: :	:	43.7	48.2	:	47.5	:	46.0	÷	48.0	:	43.5	44.5	:	:	44.0	:	:	46.8	44.6
	Average weight in kilo-gr'mmes	22.5	23·1	18.7	21.8	21.8	20.5	$21 \cdot 1$	21.6	21.2	19.2	22.3	21.0	21.2	20.6	19.6	19.3	22.1	19.9	19.2	21.7	22.4	21.7
YEARS.	Average weight in pounds	49.6	51.1	41.2	48.2	48.1	44.5	46.5	47.6	46.8	42.4	49.1	46.4	46.8	45.4	43.2	42.7	48.7	43.9	42.3	47.8	49.5	47.8
7 TO 8	Average height in centimetres	115.8	120.1	113.0	116.8	115.0	109.7	112.2	115.6	115.6	109.4	115.6	1111-5	112.8	112.2	111.0	109.2	114.8	110.7	107.9	114.5	117.9	114.8
	Average height in inches	45.6	47.3																				
	SCHOOL.	Accrington Road	Audley Range	Bank Ton	Cedar Street	Christ Church	Emmanuel	Furthergate	Four Lanes End	Griffin	Holy Trinity	Lower Darwen Council	Maudsley Street	Moss Street	Mill Hill Council	Norfolk Street	Park Road	Sacred Heart	St. Alban's	St. Anne's	St. Andrew's	St. Barnabas'	St. Bartholomew's

TABLE XX.—Continued.

Males.—Average Heights and Weights.—Second Examination.

							0	פו														
	Average weight in kilo-gr'mmes		: :	:	:	:	:	:	:	:	÷	:	:	:	:	:	:	:	:	:		20.9
9 TO 10 YEARS.	Average weight in pounds		: :	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		46.2
9 TO 1(	Average height in centi- metres		: :	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		109.7
	Average height in inches		: :	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		43.2
	Average weight in kilo- gr'mmes		21.4	:	:	23.6	23.8	:	:	22.7	21.1	22.6	:	21.8	24.6	20.5	22.8	:	:	:		22.4
TO 9 YEARS.	Average weight in pounds		47.3	:	:	52.0	52.5	:	:	50.1	46.5	49.9	:	48.2	54.2	45.2	50.4	:	:	:	8	49.5
8 TO 9	Average height in centi- metres			; :	:	121.4	119.4	:	:	120.6	116.8	116.6	:	114.3	125.0	115.6	118.9	:	:	:		117.1
	Average height in inches		45.6	· :	:	47.8	47.0	:	:	47.5	46.0	45.9	:	45.0	49.2	45.5	46.8	:	:	:		46.1
	Average weight in kilo- gr'mmes	0	20.8 21.4	:	20.7	21.4	21.8	19.6	19.7	20.8	19.3	21.4	17.2	18.8	21.3 -	20.0	20.4	19.6	20.0	:		20.7
TO 8 YEARS.	Average weight in pounds	9	46.0	:	45.7	47.3	48.1	43.2	43.6	45.9	42.7	47.3	37.9	41.4	46.9	44.2	45.1	43.2	44.1	:		45.6
7 TO 8	Average height in centimetres		116.8	:	115.6	115.0	113.5	1111.5	110.5	111.2	109.4	112.8	105.4	108.2	115.8	112.5	113.2	111.2	110.5	:		113.0
	Average height in inches		46.0			45.3							41.5					43.8		:		44.5
	SCHOOL.		St. Gabriel's	B'k-a-M'r.	Guide	St. John's	St. Joseph's	St. Ľukė's	St. Mary's	St. Matthew's	St. Michael's	St. Paul's	St. Peter's C.E.	" R.C.	St. Silas's	St. Stephen's	St. Thomas's	Wensley Fold	Whalley Range	Witton Infants		Averages

TABLE XX.—Continued.

MALES—Average Heights and Weights. Second Examination.

							0					
		10 TO 11 YEARS.	YEARS.			11 TO 12 YEARS.	YEARS.			12 TO 13 YEARS.	YEARS.	
SCHOOL,	Average height in	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes
							-					
Accrington Road	:	:	:	:	:	:	:	:	:	:	:	:
Audley Range	:	:	:	:	:	:	:	:	:	:	:	:
All Saints'	:	:	:	:	:	:	:	:	:	:	:	:
Bank Top	:	:	:	:	:	:	:	:	:	:	:	:
Cedar Street	:	:	:	:	:	:	:	:	:	:	:	:
Christ Church	:	:	:	:	:	:	:	:	:	:	:	:
Emmanuel	:	:	:	:	:	:	:	:	:	:	:	•
Furthergate	:	:	:	:	:	:	:	:	51.5	130.8	64.0	29.0
Four Lanes End	:	:	:	:	:	:	:	:	:	:	:	:
Griffin	:	:	:	:	:	:	:	:	:	:	:	:
Holy Trinity	:	:	:	:	:	:	:	:	:	:	:	:
Lower Darwen Council	:	:	:	:	48.2	122.4	56.5	25.6	:	:	:	:
Maudsley Street	:	:	:	:	:	:	:	:	:	:	:	:
Moss Street	:	:	:	:	:	:	:	:	:	:	:	:
Mill Hill Council	:	:	:	:	1:	:	:	:	:	:	:	:
Norfolk Street	:	:	:	:	:	:	:	:	:	:	:	:
Park Road		:	:	:	:	:	:	:	:	:	:	:
Sacred Heart	49.0	124.4	56.0	25.4	:	:	:	:	52.1	132.3	71.2	32.3
St. Alban's	:	:	:	:	:	:	:	:	53.3	135.4	65.7	29.8
St. Anne's	:	:	:	:	:	:		:	53.0	134.6	0.69	31.3
St. Andrew's	:	:	:	:	:	:	:	:	:	:	:	:
St. Barnabas'	:	:	:	:	:	:	:	:	:		:	:
St. Bartholomew's	:	:	:	:	:	:	:	:	:	:		:

TABLE XX.—Continued.

MALES—Average Heights and Weights. Second Examination.

		10 TO 11 YEARS.	VEARS.			11 TO 12 YEARS.	YEARS.			12 TO 13 YEARS.	YEARS.	
SCHOOL.	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes
									1			
St. Gabriel's	:	:	;	:	:	:	:	:	:	:	:	:
St. James, Shear Brow R'k-a-W'r		:	:	:	:	:	:	:	:	:	:	:
" " " " " " " " " " " " " " " " " " "		:		:	:		•	:	:	:	:	:
2+ 1ohn's	•	:	:	:	•	:	:	:	:	:	:	:
St. Joseph's	: :	: :	: :	: :	: :	: :	: :	: :	:	:	:	* * * * * * * * * * * * * * * * * * * *
St. Luke's		:	:	:	:	:	:	:	: :	: :	: :	: :
St. Mary's	:	:	:	:	:	:	:	:	:	:	:	
St. Matthew's	:	:	:	:	:	:	:	:	:	:	:	:
St. Michael's	:	:	:	:	:	:	:	:	:	:	:	:
St. Paul's	:	:	:	:	:	:		:	:	:	:	:
St. Peter's, C.E	:	:	:	:	:	:	:	:	53.0	134.6	73.8	33.5
K.C	:	:	:	:	:	:	:	:	:	:	:	:
St. Silas s	:	:	:	:	:	:	:	:	: 0	101	:	
St. Thomas's	: :	: :	: :	: :		: :			0.00	6.001	/. 1/	6.75
Wensley Fold.				: :							:	:
Whalley Range	:	:		:	:	:		: :	: :	: :	•	• •
Witton Infants	:	:	:	:	:	:		:	:	:		
Averages	49.0	124.4	56.0	25.4	48.2	122.4	56.5	25.6	52.7	133.8	69.2	31.4

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TABLE XXI.

Females.—Average Heights and Weights. Second Examination.

7 TO 8
Average Average weight in kilo-
pounds gr'mmes
44.6
_
42.9 19.4

TABLE XXI.—Continued. Females.—Average Heights and Weights.—Second Examination.

100 trans.
Average   weight
in centi- metres pounds
0
113.8 46.0
116.8
114.3 43.5
43.7 111.0 44.0
44.9 114.1 46.3
43.6 110.7 43.9
42.9   109.0   42.9
42.9 109.0 41.9
45.7
43.4 110.2 41.6
44.2 112.2
42.5 107.9
43.9 - 111.5
45.1 114.5
112.2
113.0
113.8 44.6
112.2 43.8
111.7
44.2 112.2 44.2

TABLE XXI.—Continued.

FEMALES.—Average Heights and Weights. Second Examination.

		10 to 11 years.	I YEARS.			11 TO 12 YEARS.	YEARS.			12 to 13 years	3 YEARS.	
SCHOOL.	Average height	Average height	Average weight	Average weight	Average height	Average height	Average weight	Average weight	Average	Average height	Average	Average weight
	inches	metres	spunod	gr'mmes		metres	spunod	gr'mmes		metres	spunod	gr'mmes
Accrington Road	7.1.5	131.3	57.7	96.1								
Audley Range		:	:	:	: :	: :	: :	: :	53.7	136.4	63.2	28.6
All Saints'	:	:	:	:	:	:	:	:	:	:	:	:
Bank Top	:	:	:	:	:	:	:	:	:	:	:	:
Cedar Street	:	:	:	:	:	:	:	:	:	:	:	:
Christ Church	:	:	:	:	52.1	132.6	65.0	29.5	:	:	:	:
Emmanuel	:	:	:	:	:	:	:	:	:	:	:	:
Furthergate	:	:	:	:	:	:	:	:	56.7	144.0	76.7	34.8
Four Lanes End	:	:	:	:	:	:	:	:	:	:	:	:
Griffin	:	:	:	:	:	:	:	:	:	:	:	:
Holy Trinity	:	:	:	:	:	:	:	:	:	:	:	:
Lower Darwen Council	:	:	:	:	:	:	:	:	:	:	:	:
Maudsley Street	:	:	:	:	51.0	129.5	20.0	31.7	:	:	.:	:
Moss Street	:	:	:	:	:	:	:	:	:	:	:	:
Mill Hill Council	:	:	:	:	:	:	:	:	:	:	:	:
Norfolk Street	:	:	:	:	:	:	:	:	:	:	:	:
Park Road	:	:	:	:	:	:	:	:	:	:	:	:
Sacred Heart	:	:	:	:	:.	:	:	:	:	:	:	:
St. Alban's	:	:	:	:	:	:	:	:	:	:	:	:
St. Anne's	:	:	:	:	:	:	:	:	:	:	:	:
St. Andrew's	:	:	:	:	:	:	:	:		:	:	:
St. Barnabas'	:	:	:	:	:	:	:	:	58.5	148.6	84.0	38.1
St. Bartholomew's	:	:	- :	:	:	:	:	:	:	:	:	:

TABLE XXI.—Continued.

FEMALES.—Average Heights and Weights. Second Examination.

	Average weight in kilo-gr'mmes	:	: [	6.78	:	:	:	:	:	33.4	23.3	:	:	:	:	:	:	:	:	:		32.6
12 TO 13 YEARS.	Average weight in pounds	:	: 6	82.7	:	:	:	:	:	73.7	51.5	:	:	:	:	:	:	:	:	:		71.9
12 TO 13	Average height in centimetres	:	: (	150.3	:	:	:	:	:	138.9	119.4	:	:	:	:	:	:	:	:	:		139.4
	Average height in inches	:	:	59.5	:	:	:	:	:	54.7	47.0	:	:	:	:	:	:	:	:	:		54.9
	Average weight in kilo- gr'mmes	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		30.6
YEARS.	Average weight in pounds	:	:	:	:	:	:	:	:	:	:,	:	:	:	:	:	:	;	:	:		67.5
11 TO 12 YEARS.	Average height in centimetres	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	17	131.0
	Average height in inches	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		51.6
EARS.	Average weight in kilo- gr'mmes	:	:	:	:	:	:	:	:	27.3	27.7	:	:	:	:	23.6	:	:	:	:		26.2
10 TO 11 YEARS.	Average weight in pounds	:	:	:	:	:	:	:	:	60.2	61.2	:	:	:	:	52.1	:	:	:	:		57.8
10 то 1	Average height in centi- metres	:	:	:	;	:	:	:	:	125.0	128.8	:	:	:	:	126.2	:	:	:	:		127.7
	Average height in inches	:	:	:	:	:	:	:	:	49.2	50.7	:	:	:	:	49.7	:	:	:	:		50.3
	SCHOOL.	St. Gabriel's	St. James', Shear Brow	" B'k-a-M'r	" Guide	St. John's	St. Joseph's	St. Luke's	St. Mary's	St. Matthew's	St. Michael's	St. Paul's	St. Peter's C.E.	" R.C	St. Silas's	St. Stephen's	St. Thomas's	Wensley Fold	Whalley Range	Witton Infants		Averages

TABLE XXII.

Conditions, Defects, &c., found in the 968 Children examined for the second time.

Ear Dis.	Defective.	[6] - [ [4 ] [ ] [ ] [ ] [ ] [ ] [ ]
Dis.Ext. F	Good.	237 237 288 298 298 298 298 298 36 61 61 61 61 61 61 61 61 61 61 61 61 61
Eye Dis.	Defective.	[ id@ : i@ : idd idd
Ext. E	Cood.	25 27 28 26 27 28 27 28 27 27 27 27 27 27 27 27 27 27 27 27 27
Thr't.	Defective.	2232338312117112323313323
Nose &	Good.	220 21 21 21 21 21 21 21 21 21 21 21 21 21
	Esd.	000000000000000000000000000000000000000
Teeth	Medium.	\$\frac{1}{6}\$\frac
	Good.	0-0 :0400-0100 :n : :0004-0
sss.	B <sup>g</sup> q.	0-00-0-0 ino i- i iub-ond-
Cleanliness	Medium.	400000000000000000000000000000000000000
Clea	Good.	21
ı.	Bad.	
Footgear	Medium.	: : : : : : : : : : : : : : : : : : :
Fo	Good.	25 4 4 5 0 4 5 6 5 6 6 9 7 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
òò	Bad.	
Clothing	Medium.	410 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
J	Good.	\$\frac{21}{88} \partial 21 \tau \frac{11}{12} \partial 21 \tau \tau \tau \tau \tau \tau \tau \tau
n.	Bød.	:   :
utrition.	Medium.	£4£££2110101 :04 :000000
Nu	Good.	#125 2 2 2 3 4 4 8 2 6 8 9 1 4 5 1 2 1 2 2 2 3 6 8 8 9 1 4 5 1 2 2 2 2 3 6 8 8 9 1 4 5 1 2 2 2 2 3 6 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	SCHOOL.	Accrington Road Audley Range Audley Range Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffin Holy Trinity Lower Darwen Council Maudsley Street Mill Hill Council Norfolk Street Park Road Sacred Heart Sacred Heart St. Anban's St. Andrew's St. Andrew's St. Barnabas'

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TABLE XXII.—Continued.

Conditions, Defects, &c., found in the 968 Children examined for the second time.

Ear Dis.	Defective.	-	17
Ext. E	Good.	251 166 168 168 168 168 168 168 168 168 16	951
Dis.	Defective.	- ! ! ! ! - !01401- !U ! ! !UH !	46
Ext. Eye	Good.	1822222238	922
Thr't,Ext.	Defective.	w ; w : - r 4 - w 4 r 4 w w 4 w w − x ;	180
Nose &	Good.	7945 8 8 4 7 7 0 9 9 9 9 9 1 1 4 8 8 8 8 8 8 8 1 1 1 1 1 1 1 1 1 1	788
-	Bad.	8 L 0 0 4 8 C L L L 2 0 8 0 L 8 C C L 4 8 :	532
Teeth.	Medium.	487-1 : 10000000000000000000000000000000000	344
I	Good.	01-::::::::::::::::::::::::::::::::::::	92
SS.	Bad.	: :- : :-4 :484 :00 : :008 :	87
Cleanliness	Medium.	01 C 8 2 2 4 4 4 8 8 5 8 5 8 9 C 8 4 4 4 8 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1	451
Cles	Good.	21 0 21 1 21 22 23 21 23 22 23 24 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	430
H,	Bad.		25
Footgear.	Medium.	ww- :-wa :w-044401-040 :	146
FO	Good.	1116 416 416 416 416 416 416 416 416 416	197
oic o	Bad.	[	41
Clothing.	Medium.	: 33.250 × 2	603
J	Good.	13267227227223326871	324
no.	Bad.		10
Vutrition.	Medium.	9899 : EL-1-484-488440 :	186
N	Good.	20 10 10 10 10 10 10 10 10 10 10 10 10 10	772
	SCHOOL.	St. Bartholomew's St. Gabriel's St. James', Shear Brow St. John's St. John's St. Joseph's St. Luke's St. Luke's St. Marthew's St. Matthew's St. Matthew's St. Michael's St. Paul's St. Promas's St. Stephen's St. Stephen's St. Stephen's St. Thomas's Wensley Fold Whalley Range	Totals

### TABLE XXIII.

### Conditions, etc., found amongst the 968 children examined for the second time,

	Good.	Medium.	Bad,
	Percentage	Percentage	Percentage
Nutrition	79.8	19 · 1	1.0
Clothing	33.4	62.3	$4 \cdot 2$
Footgear		15.0	2.6
Cleanliness	$44 \cdot 4$	46.5	9.0
Teeth	$9 \cdot 5$	35.5	54.9

	Good.	Defective.
Nose and Throat	81.4	18.5
External Eye Defects	$95 \cdot 2$	4.7
External Ear Defects (Otorrhœa)	98.2	1.7

Amongst the 968 children examined for the second time, the following defects were found:—

Enlarged Neck Glands	$34 \cdot 8$	per cent.
Greatly Enlarged Neck Glands	$4 \cdot 9$	,,
Enlarged Tonsils	$11 \cdot 7$	,,
Dirty and Sore Heads	6.9	,,
All Eye Defects	$5 \cdot 4$	"
Skin	$4 \cdot 5$	,,
Anæmia	$3 \cdot 2$	,,
Speech Defects	$2 \cdot 9$	,,
Adenoids	$2 \cdot 8$	,,
Tonsils and Adenoids	$2 \cdot 7$	,,
All Ear Defects	$2 \cdot 6$	,,
Rickets	1.5	,,
Circulatory Diseases	1.7	,,
Other Conditions of Nose & Throat	1.0	,,
Respiratory Diseases	$0 \cdot 7$	,,
Nervous Diseases	0.5	"
Developmental Defects	$0 \cdot 3$	,,
Tubercular Diseases	$0 \cdot 1$	,,
Other Diseases	$1 \cdot 3$	,,

TABLE XXIV.

Males (Second Examination).

		Av	VERAGE	HEIGH	IT.	Av	ERAGE	WEIGH	IT.
Ages.	.pg	Incl	nes.	Centin	netres.	Pou	nds.	Kilogr	ammes
	No. Examined.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.
7- 8	402	44.5	44.6	113.0	113 · 3	45.6	50 · 7	20.7	23.0
8- 9	47	46 · 1	46 · 4	117 · 1	117.9	49.5	54.3	22 · 4	24.6
9-10	1	43 • 2	48.8	109 - 7	123.9	46.2	58.3	20.9	26 · 4
10-11	1	49.0	50 · 7	124 · 4	128.8	56.0	64.0	25 · 4	29 · 0
11–12	1	48.2	52.6	122 · 4	133.6	56.5	69.0	25.6	31.3
12–13	12	52.7	53.7	133 · 8	136 · 4	69 · 2	73.0	31.4	33 · 1

### Therefore

Males at 7-8 were 0.1 inches below the standard in height. 5.1 pounds below weight. 8-9 were 0.3 inches below height. 4.8 pounds below weight. 9–10 were 5.6 inches below height. 12.1 pounds below weight. 10–11 were 1.7 inches below height. 8.0 pounds below weight. 11-12 were 4.4 inches below height. 12.5 pounds below weight. 12–13 were 1.0 inches below height. 3.8 pounds below weight.

TABLE XXV. Females (Second Examination).

		A	VERAGE	HEIGH	нт.	A	VERAGE	Weigi	HT.
Ages.	.pg	Inc	hes.	Centin	netres.	Pou	nds.	Kilogr	ammes
	No. Examined.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.	Blackburn.	Standard.
7- 8	443	44.2	43.5	112.2	110.5	44.2	46.2	20.0	20.9
8- 9	47	46.3	45.5	117.6	113.0	47.9	51.8	21.7	23.5
9-10	1	48.0	47 · 3	121.9	120 · 2	51.0	55.2	23 · 1	25.0
10-11	5	50.3	48.9	127 · 7	124 · 2	57.8	60.5	26.2	27 · 4
11-12	2	51.6	51.5	131.0	130 · 8	67 · 5	66.8	30.6	30.3
12-13	6	54.9	53.9	139 · 4	136.9	71.9	74.9	32.6	34.0

### Therefore

Females at 7-8 were 0.7 inches above the standard in height.

,,	,,		2.0 pounds below	,,	,,	weight.
,,	8-9	were	0.8 inches above	,,	,,	height.
,,	,,		3.9 pounds below	,,	,,	weight.
,,	9-10	were	0.7 inches above	,,	,,	height.
,,	,,		$4 \cdot 2$ pounds below	,,	22.	weight.
,,	10-11	were	1.4 inches above	,,	,,	height.
,,	,,		2.7 pounds below	,,	,,	weight.
,,	11-12	were	0·1 inches above	,,	,,	height.
,,	,,		0.7 pounds above	,,	,,	weight.
,,	12-13	were	1.0 inches above	17	,,	height.
,,	,,		3⋅0 pounds below	98	,,	weight.

### C. LEAVERS, INCLUDING HALF-TIMERS.

In this group 1,696 children comprising 840 boys and 856 girls were examined between the ages of 12 and 14 years.

Of these 1696 children, 785 children comprising 363 boys and 422 girls were engaged half the day in the cotton mills and were between the ages of 12 and 13 years.

Tables XXVI, to XXXVI, show particulars regarding half-timers and non-half-timers together with comparisons between their measurements and the standard.

Tables XXXVII. and XXXVIII. show the defects found amongst leavers, including half-timers,

The heights and weights of the half-timers examined in Blackburn during 1910, when compared with the standard heights and weights, produce results similar to those given in my Annual Education Reports for the years 1908 and 1909.

When children leave school, it is advisable that great interest should be taken in their future occupation.

Advice given at the proper time and in the proper way might prevent some of them from following certain 'blind alley' occupations, such as newspaper sellers or milk boys. I do not assert that these employees are not necessary, but I feel sure that some boys are engaged therein who would be engaged with greater profit to themselves and to the community in more suitable occupations. Possibly also in the future, adoption of this measure might obviate a cause of unemployment in certain cases.

An After-care or Children's Care Committee might, with advantage, take up this work.

TABLE XXVI.—Number of Leavers Examined.

	Number of Non-half-timers	Ħ.	ю <u>г</u>	:	7	: 0	o -	<b>⊣</b> c	1	: "	٠ ،	n	: -	<u> </u>	717	<b>-</b>	۰ ،		<b>→</b> (	27 0	ກ	: -		4
	Non-ha	M.	:67	:	_	<del>-</del>	<u> </u>	: 9	21 0	Nι	n c	90	.71	:		 	: '	n (	27	:	o (	21 0		<b>-</b>
14 YEARS	umber of half- imers engaged in Industries other than Cotton	H	::	:	:	:	:	:	:	:	: *	<u> </u>	:	:	:	:	:	:	:	:	:	:	:	:
TO	Number of half- timers engaged in Industries other than Cotton	M.	- :	:	_	_	: '	_	:	: '	<b>-</b>	:	: '	_	:	_	: '	_	:	_	_	: '	_	:
13	Number of half- timers engaged in Cotton Industry	규.	01 60	_	_	61 0	<b>20</b> 0	<b>-</b>	4,	<b>-</b> 1	7	4	<u> </u>	<b>x</b> 0 ·	4	21	:	21	:	∞	9	ro c	211	2
	Number of h timers enga in Cotton Industry	M.	: :	:	:	61	<del>-1</del> •	9	71	:	:	<u> </u>	:	_	61	67	:	61	:	61	67	4	:	7
	Number of Non-half-timers	표.	L 4	2	6	ıo	က	67	20	:	က	_	_	ß	67	_	4	က	_	14	œ	21	io (	9
j.	Non-half-time	M.	ro ro	:	7	∞	4	00	5	61	6	11	က	<u>ლ</u>	io	∞	61	9	:	∞	6	io.	7	10
12 TO 13 YEARS.	Number of half- timers engaged in Industries other than Cotton	표.	- 1	:	:	:	<u> </u>	:	:	:	:	_	:	:	:	:	:	:	:	4	:	:	7	:
2 TO 18	Number timers in Indother other	M.	1 6	٠:	_	4	:	8	:	:	:	_	:	_	:	:	:	61	:	ıo	∞	:	S	:
a	Number of half- timers engaged in Cotton Industry	표.	17	621	17	11	Ξ	14	25	:	21	6	ıo	∞	14	14	00	10	_	18	15	6	∞	11
	Number of half- timers engaged in Cotton Industry	M.	4 -	4	00	7	22	59	14	:	16	10	4	6	12	13	6	14	:	∞	6	14	6	13
		H.	32	l ro	53	18	56	25	39	_	32	19	7	22	22	18	13	18	က	46	38	16	18	56
		M.	111	1 4	18	23	31	47	27	4	31	53	6	15	22	27	11	28	7	24	38	25	25	56
	Total Number of Children Examined		43	j 0:	47	41	57	72	99	ıo	63	48	16	37	44	45	24	46	ເດ	70	9/	41	43	52
	SCHOOL.		Accrington Road	Audiey Mange	Bank Ton	Cedar Street	Christ Church	Emmanuel	Furthergate	Four Lanes End	Griffin	Holv Trinity	Lower Darwen Council	Mandslev Street	Moss Street	Mill Hill Council	Norfolk Street	Park Road	Sacred Heart	St. Alban's	St. Anne's	St. Andrew's	St. Barnabas'	St. Bartholomew's

# TABLE XXVI.—continued.—Number of Leavers Examined.

					12	то 13	TO 13 YEARS.				13	13 TO 14	YEARS	S.	11
SCHOOL.	Total Number of Children Examined			Number of half- timers engaged in Cottou Industry		Number of half- timers engaged in Industries other than Cotton		Number of Non-half-timers	er of f-timers	Number of half- timers engaged in Cotton Industry		Number of half- timers engaged in Industries other than Cotton	of half- ngaged stries than	Number of Non-half-timers	er of timers
		M.	땬	M.	뇬	M.	দ	M.	표.	M.	[표	M.	표.	M.	ഥ
St. Gabriel's St. James', Shear Brow " Black-a-Moor " Guide St. John's St. Joseph's St. Luke's St. Mary's St. Mary's St. Maryels St. Maryels St. Maryels St. Michael's St. Peter's C.E St. St. Peter's C.E St. St. St. Peter's St. St. Thomas's St. Stephen's Wensley Fold Whalley Range	220 212 213 214 274 275 205 205 205 205 205 205 205 205 205 20	25 25 25 25 25 25 25 25 25 25 25 25 25	11000048800845891888812461:	2 : :248110117848201846 :	44 :48 0 111 11 11 11 11 11 11 11 11 11 11 11	: : : : : : : : : : : : : : : : : : :			-01:4004001:L0-E40001:	- : :- :0004040100-0000 : :	φ :4 φ ω φ ω α α α α α α α α α α α α α α α α	[0] [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	[0] [ [ ] [ ] [- ] [- [- ] [ ] [	:-::au:u:	-01-:00-00000-14-40:
Totals	1696	840	856	363	422	57	22	244	173	65	134	25	8	86	97

TABLE XXVII.—Half-Timers engaged in the Cotton Industry.

AVERAGE HEIGHTS AND WEIGHTS OF HALF-TIMERS BETWEEN 12 AND 13 YEARS OF AGE.

				MALES.					FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes
Accrington Road	549	4	52.7	133.8	70.4	31.9	17	56.7	144.0	82.6	37.4
Audley Range	617	11	53.4	135.6	68.2	30.9	14	54.7	138.9	70.5	32.0
All Saints'	428	40	55.0	139.7	6. 77	35.3	61 [	55.0	139.7	70.6	32.0
Cedar Street	280 580	ν.	0.4°C 0.4°C 0.5°C	138.4	6.27 6.5	32.9 4.5	<u> </u>	54.5	137.4	70.5	31.8
Christ Church	971	22	54.5	138.4	73.1	33.1	Ξ	54.0	137.1	70.3	31.9
Emmanuel	620	56	53.7	136.4	71.8	32.6	14	53.6	136.2	65.5	29.7
Furthergate	590	14	53 · 1	134.9	8.89	31.2	25	54.2	137.7	72.1	32.7
Four Lanes End	181	:	:	:	:	:	:	:		:	: (
Griffin	759	16	54.3	137.9	71.5	32.4	21	55.9	142.0	73.9	33.5
Holy Irmity	616	10	53.7	136.4	72.5	32.9	<b>5</b> u	7.00	140.2	79.7	33.1
Mandsley Street	592	4 O	53.7	136.4	72.7	33.0	ာ တ	54.3	137.9	73.9	33.5
Moss Street	749	12	53.3	135.4	71.6	32.5	14	55.2	140.2	75.6	34.3
Mill Hill Council	828	13	55.2	140.2	72.9	33.1	14	53.6	136.2	66.5	30.2
Norfolk Street	297	6	54.5	138.4	72.5	32.9	∞	55.1	139.9	77 - 1	34.9
Park Road	735	14	52.7	133.8	69.5	31.5	10	54.2	137.7	72.5	32.9
Sacred Heart	153	:	:	:	:	:		53.5	135.9	64.0	29.0
St. Alban's	1084	∞	54.7	138.9	74.3	33.7	18	54.5	138.4	72.7	33.0
St. Anne's	926	6	53.9	136.9	73.4	33.3	15	53.0	134.6	8.89	31.2
St. Andrew's	339	14	56.1	142.5	79 · 1	35.9	6	54.8	139.2	74.3	33.7
St. Barnabas'	622	6	56.5	143.5	80.2	36.4	00	55.3	140.5	73.1	33.1

TABLE XXVII—continued.—Half-Timers engaged in the Cotton Industry.

AVERAGE HEIGHTS AND WEIGHTS OF HALF-TIMERS BETWEEN 12 AND 13 YEARS OF AGE.

Accom-    Accom-   Number   Average   Average	9				MALES.					FEMALES.		
358       13       53.3       135.4       72.7         194       2       56.0       142.2       78.8         280             324             300       2       54.5       138.4       72.1         935       4       53.8       136.6       68.4         771       15       52.9       134.4       68.4         694       10       54.1       137.4       68.6       69.9         693       11       54.7       138.9       72.6       69.9       66.9       66.9         693       7       54.1       137.4       72.5       73.6       69.9       67.2       66.9         678       2       54.0       137.1       77.1       73.8       67.2       67.2         678       4       55.5       141.0       75.9       73.8         699       15       54.2       137.7       70.5       73.8         699       15       55.5       141.0       75.9         793       9       53.3       135.4       69.9       99.9	SCHOOL.	Accom- moda- tion.	Number exam- ined.	Average height in inches	Average height in centi- metres		1 '	Number exam- ined.	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes
nr 280	artholomew's	358	13	53.3	135.4	72.7	33.0	11	54.9	139.4	77.1	34.9
324        300     2     54.5     138.4     72.1       771     15     52.9     134.4     68.4       588     11     52.9     134.4     68.4       694     10     54.1     137.4     68.4       693     11     54.7     138.9     72.6       591     7     54.1     137.4     72.5       794     3     52.5     138.9     72.6       678     4     54.0     137.4     72.5       678     5     133.3     77.1       678     2     54.1     137.4     76.2       554     13     7     73.8       659     15     54.2     137.7     70.5       678     5     137.7     70.5       793     9     53.3     135.4     69.9       793     9     53.3     135.4     69.9       793     9     53.3     135.4     69.9	abriel's	194	67 ;	56.0	142.2	78.8	35.7	4 4	56.7	144·0 137·9	74.5	33.8 32.6
2 34.5 1.55.4 72.1 72.1 72.1 155.4 68.3 135.4 68.3 135.4 68.3 135.4 68.3 135.4 68.4 68.4 68.4 135.4 135.4 68.6 69.3 11 54.7 138.9 72.6 54.1 137.4 72.5 79.4 3 52.5 135.9 67.2 67.8 15.4 137.4 77.1 14.9 67.8 15.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 76.2 55.4 137.4 77.1 73.8 69.9 73.8 73.8 73.8 73.8 73.8 73.8 73.8 73.8	" Black-a-Moor	324	::	: -		: :	: : :	:	:			
771 15 52.9 134.4 68.4 58.8 11 52.3 132.8 66.9 66.9 69.4 11 54.7 138.9 72.6 591 7 54.1 137.4 68.6 591 7 54.7 138.9 72.6 591 7 54.1 137.4 72.5 68.7 68.7 68.7 68.6 69.9 15 54.2 137.7 70.5 69.9 15 55.5 141.0 75.9 793 9 53.3 135.4 69.9 9	,, Guide	935	N <del>4</del>	53.8	136.6	68.3	32.7	4 හ	57.2	145.3	82.9	37.6
588 11 52.3 132.8 66.9 66.9 693 11 54.7 137.4 68.6 693 7 54.1 137.4 68.6 693 7 54.1 137.4 72.5 794 3 52.5 133.3 71.1 77.1 493 15 53.5 135.9 67.2 678 2 54.1 137.4 76.2 554 10 54.2 137.7 70.5 699 15 54.2 137.7 70.5 793 9 53.3 135.4 69.9 793 793.8	seph's	771	15	52.9	134.4	68.4	31.0	6	53.4	135.6	69 · 5	31.5
694 110 54-1 137-4 68-6 693 11 54-7 138-9 72-6 591 7 54-1 137-4 72-5 794 3 52-5 133-4 77-1 68-6 68-6 68-6 68-6 68-6 68-6 68-6 68	ukė's	588	11	52.3	132.8	6.99	30.3	11	55.2	140.2	74.5	33.8
591     7     54·1     137·4     72·5       794     3     52·5     133·3     71·1       637     4     54·0     137·1     77·1       493     15     53·5     135·9     67·2       678     2     54·1     137·4     76·2       554     10     54·2     137·7     70·5       699     15     54·2     137·7     70·5       435     4     55·5     141·0     75·9       793     9     53·3     135·4     69·9       207	ary's	694 693	110	54·1 54·7	137.4	68.6 72.6	31.1	11	58·1	142.5	77.7	33.5 33.5 33.5
794     3     52.5     133.3     71.1       637     4     54.0     137.1     77.1       678     2     54.1     137.4     76.2       699     15     54.2     137.7     73.8       699     15     54.2     137.7     73.8       435     4     55.5     141.0     75.9       793     9     53.3     135.4     69.9       207	ichael's	591	7	54.1	137.4	72.5	32.9	7	54.1	137.4	72.6	32.9
637 4 54.0 137.1 77.1 67.2 678 15 53.5 135.9 67.2 678 2 54.1 137.4 76.2 554 10 54.2 137.7 73.8 699 15 54.2 137.7 70.5 435 4 55.5 141.0 75.9 793 9 53.3 135.4 69.9	aul's	794	က	52.5	133 · 3	71.1	32.2	6	53.5	135.9	0.69	31.3
493     13     53.5     135.9     67.2       554     10     54.2     137.4     76.2       699     15     54.2     137.7     70.5       435     4     55.5     141.0     75.9       207          53.3     135.4     69.9	eter's C.E	637	4 1	54.0	137.1	77.1	34.9	4.	55.5	141.0	74.9	34.0
554 10 54.2 137.7 73.8 699 15 54.2 137.7 70.5 435 4 55.5 141.0 75.9 793 9 53.3 135.4 69.9 	", K.C.	678	7 2 7	54.1	137.4	76.2	34.5	11	56.6	143.7	76.9	34.9
699 15 54.2 137.7 70.5 435 4 55.5 141.0 75.9 793 9 53.3 135.4 69.9 	tephen's	554	10	54.2	137.7	73.8	33.5	13	55.3	140.5	74.9	34.0
207 55.5 141.0 75.9	homas's	669	15	54.2	137.7	70.5	32.0	23	55.9	142.0	75.1	34.0
207	sley Fold	435	4	55.5	141.0	75.9	34.4	13	54.9	139.4	73.1	33.1
207 54.0 137.1 79.9	ley Range	793	6	53.3	135.4	6.69		12	55.4	140.7	75.2	34.1
54.0 197.1 79.9	on Infants	207	:	:	:	:	:	:	:	:	:	:
6.7/ 1.761 0.46	Average			54.0	137.1	72.3	32.8		54.8	139.2	73.1	33.1

TABLE XXVIII.—Half-Timers engaged in the Cotton Industry.

AVERAGE HEIGHTS AND WEIGHTS OF HALF-TIMERS BETWEEN 13 AND 14 YEARS OF AGE.

											-
				MALES	S3				FEMALES	ES.	
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes
	5						0	0 11	140 5	10 0	91.0
Accrington Koad	049 617	:	:	:	: :	: :	v1 cc	55.5	140.3	9.92	34.7
Aumey stange All Saints'	428	: :		: :		: :	) <del>-</del>	55.5	141.0	77.0	34.9
Bank Top	567	:	:	:	:	:	_	54.2	137.6	0.07	31.7
Cedar Street	580	23	57.3	145.5	79.5	36.0	61	57.6	146.3	84.7	38.4
Christ Church	971	4	55.0	139.7	74.0	33.6	oo.	56.1	142.5	0.62	35.8
Emmanuel	620	9	54.7	138.9	74.9	34.0	∞	55.6	141.2	75.6	34.3
Furthergate	590	2	56.0	142.2	78.5	35.6	7	57.2	145.3	79.2	35.9
Four Lanes End	181	:	:	:	:	:	_	49.0	124.4	57.0	25.8
Griffin	759	:	:	:	:	:	7	56.3	143.0	72.6	32.9
Holy Trinity	919		48.5	123.2	60.5	27.4	7	58.0	147.3	8.98	39.3
Lower Darwen Council	287	:	:	:	:	:	-	57.5	146.0	79.2	35.9
Maudsley Street	592	-	57.2	145.3	78.0	35.4	so.	56.1	142.5	75.6	34.3
Moss Street	749	23	55.8	141.7	82.7	37.5	+	56.9	144.5	82.4	37.3
Mill Hill Council	859	73	55.8	141.7	74.5	33.8	2	58.1	147.6	83.5	37.8
Norfolk Street	297	:		:	:	:	:	:	:	:	:
Park Road	735	61	56.3	143.0	80.0	36.3	77	56.5	143.5	75.5	34.2
Sacred Heart	153	:	:	:	:	:	:	:	:	:	:
St. Alban's	1084	73	55.3	140.5	75.1	34.0	oc	56.1	142.5	0.08	36.3
St. Anne's	926	7	53.5	135.9	68.7	31.1	9	54.4	138.2	70.3	31.9
St. Andrew's	339	4	57.2	145.3	80.4	36.4	5	55.6	141.2	73.1	33 · 1
St. Barnabas'	622	:	:	:	:	:	61	55.8	141.7	8.92	34.8
St. Bartholomew's	358	7	56.3	143.0	77.3	35.0	5	56.8	144.2	81.0	36.7

TABLE XXVIII—continued.—Half-Timers engaged in the Cotton Industry.

AVERAGE HEIGHTS AND WEIGHTS OF HALF-TIMERS BETWEEN 13 AND 14 YEARS OF AGE.

				Males					FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes
St. Gabriel's	194		58.5	148.6	87.5	39.7	ro	54.8	139.2	6.02	32.1
St. James', Shear Brow	280	:	:	:	:	:	į.,	: (		. : 1	
" Black-a-Moor Guide	324 300	:-	57.7	146.6	78.7	35.7	<b>-</b>	58.5	149.8 148.6	85.0 115.0	38.57 5.57
St. John's	935	:	:	:	:	:	4	56.7	144.0	80.4	36.4
St. Joseph's	771	5	55.1	139.9	72.1	32.7	īC	56.9	144.5	78.7	35.7
St. Luke's	588	က ·	53.3	135.4	0.89	30.8	7	59.5	151.1	0.98	39.0
St. Mary's	694	4 (	55.1	139.9	78.5	35.6	ıc (	24.8	139.2	72.8	33.0
St. Matthew's	693	n -	7.40	138.9	74.6	× 50	21 -	54.1	137 · 4	78.0	35.4
St. Michael s	591 794	4 6	00 00 00 10 00 10	131.8	79.4 69.5	31.0	4 c	54.5	138.4	4.2.4	32.9 9.1.00
St. Peter's C.E.	637	1 61	57.6	146.3	74.7	33.9	1	56.7	144.0	81.7	37.0
" R.C	493	က	54.3	137.9	0.69	31.3	œ	56.5	142.8	81.8	37.1
St. Silas's	829	_	62.0	157.4	109.0	49.4	1	55.0	139.7	0.99	29.9
St. Stephen's	554	က	56.0	142.2	0.94	34.5	_	57.0	144.8	83.7	37.9
St. Thomas's	669	61	54.7	138.9	73.5	33.3	က	53.3	135.4	67.2	30.5
Wensley Fold	435	7	53.6	136.2	9.69	31.6	4	54.9	139.4	6.02	32.1
Whalley Range	793	:	:	:	:		_	54.5	138.4	0.99	29.9
Witton Infants	202	:	:	:	:	:	:	:	:	:	:
Averages			55.5	141.0	76.4	34.6		55.8	141.8	77.0	34.9

TABLE XXIX.—Half-Timers engaged in the Cotton Industry.

AVERAGE HEIGHTS AND WEIGHTS OF MALES AND FEMALES COMBINED, BETWEEN THE AGES OF 12 AND 13 YEARS, AND 13 AND 14 YEARS RESPECTIVELY.

	M. Of		12 TO 13 YEARS.	YEARS.	-	No of		13 TO 14 YEARS.	YEARS.	
SCHOOL.	boys and girls com-	\( \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Average Average height in centimination	Average weight in	Average weight in kilo-		Average height in	Average height in centimetres	Average weight in	Average weight in kilo-
	Dome	inches	metres	pounds	gr mmes		Illemes	menes	Former	8, 11111123
Accrington Road	21	54.7	138.9	76.5	34.7	61	55.3	140.5	70.3	31.9
Audley Range	25	54.0	137.1	69 · 3	31.4	က	55.4	140.7	9.92	34.7
All Saints'	9	55.0	139.7	74.2	33.6	_	6.66	1+1.0	0.//	34.9
Bank Ton	25	54.1	137.4	72.4	32.9		54.2	137.6	20.0	31.7
Cedar Street	81	54.3	137.9	70.8	32.1	4	57.4	145.8	82.1	37.2
Christ Church	33	54.2	137.7	71.7	32.5	12	55.5	141.0	76.5	34.7
Emmanuel	43	53.6	138.2	9.89	31.1	1+	55.1	139.9	75.2	34.1
Furthergate	39	53.6	136.2	70.4	31.9	9	56.6	143.7	78.8	35.7
Fulfilitigate Find	}	)	;			_	19.0	124.4	57.0	25.8
Griffin	37	55.1	139.9	72.7	33.0	7	56.3	143.0	72.6	32.9
Holy Trinity	61	54.4	138.2	74.4	33.7	ıo	53.2	135.2	73.6	33 · 3
Lower Darwen Council	6.	24.8	139.2	72.0	32.6	_	57.5	146.1	79.2	35.9
Mandsley Street	17	54.0	137.1	73.3	33.2	6	56.6	143.7	8.92	34.8
Moss Street	26	54.2	137.7	73.6	33.3	9	56.3	143.0	82.5	37.4
Mill Hill Council	27	54.4	138.2	69.7	31.6	4	56.9	144.5	0.62	35.8
Norfolk Street	17	54.8	139.2	74.8	33.9	:	:	:	:	:
Park Road	24	53.4	135.6	. 71.0	32.2	4	56.4	143.2	77.7	35.2
Sacred Heart	-	53.5	135.9	0.19	29.0	:	:	:	:	: ;
St. Alban's	26	54.6	138.7	73.5	33.3	10	55.7	141.5	77.5	35.1
St Anne's	24	53.4	135.6	71.1	32.2	oo	53.9	136.9	69.5	31.5
St Andrew's	23	55.4	140.7	76.7	34.8	6	56.4	143.2	76.7	34.8
St. Barnabas'	17	55.9	142.0	9.92	34.7	5	55.8	141.7	8.92	34.8

AVERAGE HEIGHTS AND WEIGHTS OF MALES AND FEMALES COMBINED, BETWEEN THE AGES TABLE XXIX.—continued.—Half-Timers engaged in the Cotton Industry. OF 12 AND 13 YEARS, AND 13 AND 14 YEARS RESPECTIVELY.

					3					
	No. of		12 TO 13	12 TO 13 YEARS.		No. of			13 TO 14 YEARS.	
SCHOOL.	boys and girls com- bined	Average height in inches	Average height in centimetres	Average Average height weight in centimetres pounds	Average weight in kilo- gr'mmes	t weight girls height in kilo- s gr'mmes bined inches	Average height in inches	Average Average height weight in centimetres pounds	Average weight in pounds	Average weight in kilo- gr'mmes
St. Bartholomew's St. Gabriel's	24 6	54.1	137.4	74.9	34.0	r u	56.5	143.5	79.1	35.8
St. James', Shear Brow	4	54.3	137.9	72.0	32.6	· :	0.00	/. OF T	1 ::	6.00
"Black-a-Moor	: '	:	: 0	:,	: 6	(	59.0	149.8	85.0	38.5
St. John's	01	4. r.	138.2	71.7	5.75 5.75 7.75	21 -	58.1	147.6	96.98 8.00	95.5
St. Joseph's	24	53.1	134.9	6.89	31.3	+ 1	56.0	142.3	75 -4	34.5
Ss. Luke's	22	53.7	136.4	70.2	31.8	32	56.4	143.2	77.0	34.9
St. Mary's	21	55.1	139.9	73.1	33 · 1	6	54.9	139.4	75.6	34.3
St. Matthew's	27	53.9	136.9	73.5	33.3	ıo	54.4	138.2	76.3	34.6
St. Michael's	14	54.1	137.4	72.5	32.9	σ.	55.0	139.7	75.9	34.4
St. Paul's	12	53.0	134.6	70.0	31.7	4	51.5	130.8	67.1	30.4
St. Peter's C.E.	<b>∞</b>	54.7	138.9	0.92	34.4	က	57.1	145.1	78.5	35.4
K.C.	56	54.0	$137 \cdot 1$	69 · 1	31.3	11	55.2	140.2	75.4	34.2
St. Silas's	χ 20	55.3	140.5	76.5	34.7	61	58.5	148.6	87.5	39.7
St. Stephen's	23	54.7	138.9	74.3	33.7	4	56.5	143.5	79.8	36.5
St. Thomas's	38	55.0	139.7	72.8	33.0	ıö	54.0	137.1	70.3	31.9
Wensley Fold	17	55.2	140.2	74.5	33.8	9	54.2	137.6	70.5	31.8
Whalley Range	21	54.3	137.9	72.5	32.9	-	54.5	138.4	0.99	29.9
Witton Infants	:	:	:	:	:	:	:	:	:	:
Averages		54.4	138.2	72.6	32.9		55.6	141.2	76.3	34.6

TABLE XXX.—Half-Timers Engaged in Industries other than Cotton.

AVERAGE HEIGHTS AND WEIGHTS AT 12 TO 13 YEARS OF AGE.

Accom- moda-	Number	Average height	Males Average   A height   v	Average weight	Average	Number	Average	FEMALES Average Av	Average weight	Average
-	exam- ined	in	in centi- metres	in pounds	in kilo- gr'mmes	exanı- ined	inches	in centi- metres	spunod	
		54.0	137.1	68.2	30.9	_	53.5	135.9	72.2	32.7
	2	55.9	142.0	75.4	34.2	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	_	50.7	128.8	0.09	27.2	:	:	:	:	:
	4	54.0	137.1	71.2	32.3	:	: (	: 0	: 0	: 0
	:	:		: (	: 6	_	52.5	132.6	c.99	30.1
	က	57.7	146.6	6.98	39.4	:	:		:	:
	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	:-	0.55	139.7	78.5	35.6	: -	54.2	137.7	71.5	32.4
	٠.		. :	:	:	:	:	:	:	:
	_	56.2	142.8	77.5	35 · 1	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	21	55.7	141.5	79.0	35.8	:	:	:	:	:
	:	:		: :	: ;	:	: 6	: 0	: -	
	ıo	53.0	134.6	68.5	31.1	+	6.96	143.5	0. ±0	0.00
	00	53.3	135.4	72.2	32.7	:	:	:	:	:
	: '	: ;		: 0		: 0		194.1	0.1.5	7.70
	o	54.4	138.2	13.0	0.00	:1	0.70	1.401	0.10	

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TABLE XXX.—continued.—Half-Timers Engaged in Industries other than Cotton. AVERAGE HEIGHTS AND WEIGHTS AT 12 TO 13 YEARS OF AGE.

SCHOOL. Accommoda- Num tion exa  St. Bartholomew's 358 St. Gabriel's 194 St. James', Shear Brow 280 " Guide 300 St. John's 300 St. Joseph's 335 St. Luke's 588	Number exam- ined									
358 194 280 324 300 935 771 588		Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes
280 280 324 300 935 777 588										
280 324 300 935 771 588	: :	: :	: :	: :	:		: :	: :	: :	• •
324 300 935 771 588	: :	:	: :	: :	: :	: :	: :	:	:	:
	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:
	_	54.7	138.9	70.0	31.7	:	:	:	:	:
•	ıO	53.9	136.9	9.92	34.7	61	6.64	126.7	59.5	27.0
	:	:	:	:	:	_	54.0	137.1	75.5	34.2
:	2	54.7	138.9	68.1	30.9	:	:	:	:	:
	_	57.5	146.0	83.2	37.7	_	56.0	142.2	76.2	34.5
	_	55.0	139.7	78.2	35.5	01	54.5	138.4	77.0	34.9
	7	55.5	141.0	70.2	31.8	¢1	57.1	145.1	77.6	35.2
	67	51.1	129.8	0.09	27.2	¢1	56.1	142.6	72.1	32.7
	:	:	:	:	:	:	:	:	:	:
	-	56.5	143.5	83.5	37.8	:	:	:	:	:
	3	54.1	137.4	72.7	33.0	+	54.0	137.1	62.5	28-2
	67	57.8	146.8	0.68	40.3	:	:	:	:	:
	1	50.5	128.2	60.7	27.5	:	:	:	:	:
•	ಣ	54.4	138.2	78.8	35.7	01	53.7	136.4	68.7	31.1
	:	:	:	:	:	:	:	:	:	*
Averages		54.6	138.7	74.0	33.5		54.2	137.7	71.1	32.2

TABLE XXXI.—Half-Timers Engaged in Industries other than Cotton.

AVERAGE HEIGHTS AND WEIGHTS AT 13 TO 14 YEARS OF AGE.

				3.6					,		
				MALES					FEMALES	ES.	
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilogr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes
Accrimation Road	07'4	_	0.22	140.9	6.03	21.7					
Andley Bange	617	٠	1	1	1	# 10	:	:	:	:	:
All Coints	100	:	:	:	:	:	:	:	:	:	:
All Saints	420	:-	: -	130.0		: - 0	:	:	:	:	:
Codar Street	086	٦.		174.6	0.07	04.0	:	:	: 1	:	:
Christ Church	920	٠	0.70	0.441	0.00	0.70	:	:	:	:	:
Emmanuel	620	: -	58.9	147.8	83.9	37.7	:	:	:	:	:
Furthergate	290	· :	1		3		•			:	:
Four Lanes End	181									•	:
Griffin	759	1	59.7	151.6	93.5	42.4	: :			: :	: :
Holy Trinity	919	:	:	:	:	:	_	57.7	146.6	81.0	36.7
Lower Darwen Council	287	:	:	:	:	:	:	:	:	:	:
Maudsley Street	592	_	55.2	140.2	75.5	34.2	:	:	:	:	:
Moss Street	749	:	:	:	:	:	:	:	:	:	:
Mill Hill Council	859	1	61.5	156.2	93.2	42.2	:	:	:	:	:
Norfolk Street	297	:	:	:	:	:	:	:	:	:	:
Park Road	735	_	57.0	144.8	0.62	35.8	:	:	:	:	:
Sacred Heart	153	:	:	:	:	:	:	:	:	:	:
St. Alban's	1084	_	56.0	142.2	79.2	35.9	:	:	:	:	:
St. Anne's	926	1	53.7	136.4	83.5	37.8	:	:	:	:	÷
St. Andrew's	339	:	:	:	:	:	:	:	:	:	:
St. Barnabas'	622	_	61.0	154.9	92.0	44.0	:	:	:	:	:

TABLE XXXI.—continued. Half-Timers Engaged in Industries other than Cotton. AVERAGE HEIGHTS AND WEIGHTS AT 13 TO 14 YEARS OF AGE.

				Males.					FEMALES		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilogr'mmes
St Bartholomew's	358										
St. Gabriel's	194		:		:	:	:	:	:		
St. James', Shear Brow	280	2	56.5	143.5	79.1	35.8	27	58.4	148.3	0.96	43.5
" Black-a-Moor	324	:	:	:	:	:	:	:	:	:	:
" Guide	300	:	:	:	:	:	:	:	:	:	:
St. John's	935	:	:	:	:	:		60.5	152.9	81.5	36.8
St. Joseph's	771	:	:	:	:	:		56.7	144.0	84.5	38.2
St. Ľukė's	588	Г	57.2	145.3	81.5	36.9	:	:	:	:	:
St. Mary's	694		56.7	144.0	88.0	39.9	:	:	:	:	:
St. Matthew's	693	3	58.1	147.6	95.9	42.1	;	:	:	:	:
St. Michael's	591		0.09	152.4	97.0	44.0	:	:	:	:	:
St. Paul's	794	2	55.8	141.7	86.7	39.3		53.5	135.9	0.92	34.5
St. Peter's C.E.	637	2	54.8	139.2	78.5	35.6	:	:	:	:	:
" R.C.	493	:	:	:	:	:	:	:	:	:	:
St. Silas's	829	1	54.5	138.4	0.92	34.5	_	0.09	152.4	106.5	48.3
St. Stephen's	554	-	55.7	141.5	83.0	37.6	:	:	:	:	:
St. Thomas's	669	:	:	:	:	:	_	56.0	142.2	60.5	27.3
Wensley Fold	435	:	:	:	:	:	:	:	:	:	:
Whalley Range	793	:	:	:	:	:	:	:	:	:	:
Witton Infants	207	:	:	:	:	:	:	:	:	:	:
Averages			56.9	144.5	83.7	37.9		57.5	146.1	83.6	37.9

TABLE XXXII.—Non-Half-Timers.

AVERAGE HEIGHTS AND WEIGHTS OF NON-HALF-TIMERS AT 12 TO 13 YEARS OF AGE.

											-
				MALES	SS:				FEMALES	LES.	
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilogr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo-gr'mmes
Accrington Road	549	5	53.4	135.6	74.0	33.6	7	54.7	138.9	73.8	33.5
Audley Range	617	ıo	54.2	137.7	69.3	31.4	4	54.0	137.1	6.02	$\frac{32\cdot 1}{2}$
All Saints'	428	:	:	:	:	:	61	52.0	132.1	71.3	32.2
Bank Top	567	r 0	25.8	134.1	64.4	29.5	6 u	53.7	136.4	66.9	30.3
Christ Church	971	o 4	53.6	136.2	67.8	30.7	ಾ ಣ	54.7	138.9	71.3	32.2
Emmanuel	620	000	55.9	142.0	76.3	34.6	<b>C1</b>	56.0	142.2	69.7	31.6
Furthergate	590	6	53.1	134.9	$66 \cdot 3$	30.1	S	53.4	135.6	68.5	$31 \cdot 1$
Four Lanes End	181	7	53.2	135.2	71.5	32.4	:	:	:	:	:
Griffin	759	6	54.4	138.2	6.07	32.1	က	52.5	133.3	60.2	27.3
Holy Trinity	919	11	54.2	137.7	6.07	32.1	1	51.7	131.3	72.0	32.6
Lower Darwen Council	287	က	56.7	144.0	82.7	37.5	_	52.0	132.1	64.5	26.5
Maudsley Street	592	က	54.0	137.1	68.5	31.1	ıo	52.9	134.4	71.0	32.2
Moss Street	749	ıc	55.4	140.7	76 · 1	34.5	61	55.6	141.2	72.1	32.7
Mill Hill Council	828	∞	55.3	140.5	73.1	33.1	_	54.2	137.7	62.5	28.3
Norfolk Street	297	61	56.6	143.7	78.3	35.5	4	54.8	139.2	74.0	33.6
Park Road	735	9	55.4	140.7	77 - 4	35.1	ಣ	54.7	138.9	79.1	35.8
Sacred Heart	153	:	:	:	:	:	_	58.0	147.3	81.7	37.0
St. Alban's	1084	00	53.5	135.9	6.89	31.2	14	54.6	138.7	74.7	33.9
St. Anne's	926	6	54.1	137.4	72.8	33.0	σ <sub>0</sub>	53.8	136.6	71 - 1	32.2
St. Andrew's	339	ıo	56.8	144.2	77.8	35.3	2	57.0	144.8	81.5	36.9
St. Barnabas'	622	7	54.4	138.2	6.79	30.8	io	53.5	135.9	68.5	31.1
St. Bartholomews	358	10	9.99	141.2	78.1	35.4	9	55.3	140.5	9.02	32.0

TABLE XXXII.—continued. Non-Half-Timers.

AVERAGE HEIGHTS AND WEIGHTS OF NON-HALF-TIMERS AT 12 TO 13 YEARS OF AGE.

				Males.					FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo-gr'mmes
St. Gabriel's	194	9	55.7	141.5	77.6	35.2	1	59.2	150.3	103.0	46.7
St. James', Shear Brow	280	<sub>∞</sub>	55.4	140.7	76.5	34.7	7	56.1	142.5	6.69	31.7
" Black-a-Moor	324	:	:	:	:	:	:	:	:	:	÷
" Guide	300		53.7	136.4	78.7	35.7	4	54.7	138.9	70.2	31.8
St. John's	935	ıo	57.1	145.1	77.3	35.1	s s	56.2	142.8	74.0	33 · 6
St. Joseph's	771	15	52.7	133.8	68.4	31.0	9	53.5	135.9	71.5	32.4
St. Luke's	588	က	51.6	131.0	69.3	31.4	7	57.5	146.0	78.9	35.8
St. Mary's	694	S	55.2	140.2	73.8	33.5	x	53.1	134.9	72.1	32.7
St. Matthew's	693	0	53.5	135.9	71.7	32.5	7	53.8	136.6	64.3.	29.1
St. Michael's	591	7	50.8	129.0	61.8	28.0	:	:	:	:	:
St. Paul's	794	6	52.5	133.3	65.8	29.8	7	55.4	140.7	77.2	35.0
St. Peter's C.E.	637	9	53.3	135.4	66.1	30.0	9	55.1	139.9	69.7	31.6
" R.C.	493		56.0	142.2	81.2	36.8		47.7	121.1	47.0	21.3
St. Silas's	678	13	54.8	139.2	71.5	32.4	13	55.7	141.5	74.3	33.7
St. Stephen's	554	00	54.7	138.9	75.7	34.3	=	57.0	144.8	78.9	35.8
St. Thomas's	669	4	52.0	132.1	67.5	30.6	က	52.2	132.6	63.3	28.7
Wensley Fold	435	9	54.6	138.7	71.8	32.6	9	55.3	140.5	71.3	32.3
Whalley Range	793	13	54.5	138.4	74.8	33.9	57	50.0	127.0	58.7	26.6
Witton Infants	207	:	:	:	:	:	:	:	:	:	:
Averages			54.3	138.0	72.4	32.8		54.4	138.2	711.7	32.5

TABLE XXXIII.—Non-Half-Timers.

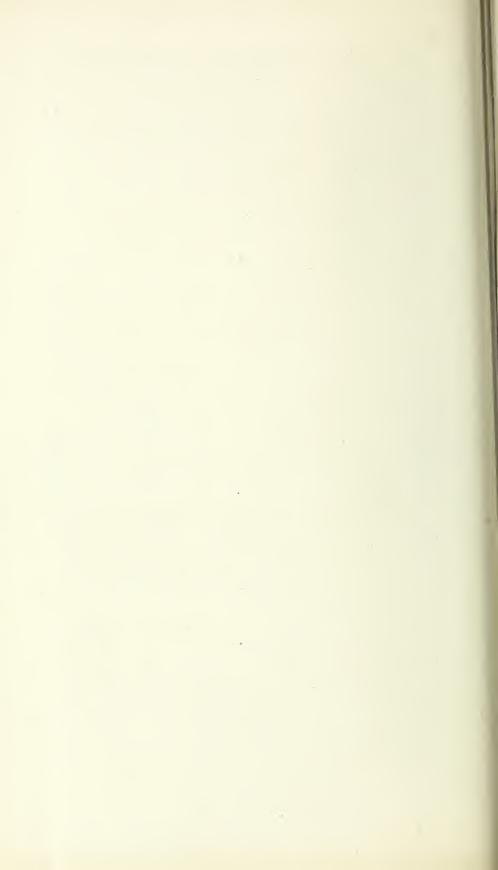
AVERAGE HEIGHTS AND WEIGHTS OF NON-HALF-TIMERS AT 13 TO 14 YEARS OF AGE.

-				MALES.					FEMALES		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight, in kilo-gr'mmes
Accrington Road Audley Range	549 617	:5	52.6	133.7	67.2	30.5	w	56.0	142.2 144.0	78.4. 70.2	35.5
All Saints' Bank Top	428 567	:-	56.5	143.5	82.2	37.3	: 67	55.3	140.5	70.3	31.9
Cedar Street	580 971		54.2	137.6	61.5	27.9	: ~		0.881		3.1.0
Emmanuel Furthergate	620 590	· :6		139.3	o	30.3	s c	52.0	132.1	0.49	29.0
Four Lanes End	181	1 61	59.0	149.8	90.5	41.0	١:	:	0.041	0 ::	
Griffin Holv Trinitv	759 616	დ 9	56.2 57.1	142.8	81.1	36 ·8	<u> </u>	58.0 56.7	147.3	92.2	41 ·8 34 ·5
Lower Darwen Council	287	2	57.8	146.8	84.5	38.2	:		:	: (	
Maudsley Street  Moss Street	592 749	: m	53.9	136.9	71.3	32.2	- c1	0.00 0.00 0.00 0.00	141 · 0 135 · 9	69.5	31 ·5 30 ·4
Mill Hill Council	859	က	58.8	149.4	85.1	38.5		57.7	146.6	67.5	36.6
Park Road	735	: ო	54.8	139.2	69.3	31.4	- m	56.6	143.7	82.7	37.5
Sacred Heart	153	7	55.4	140.7	68.3	31.0	_	52.2	132.6	0.09	27.2
St. Alban's St. Anne's	1084 956	6	54.9	139.4	72.5	32.9	61 65	55 54 5 5 5	141 · 0 138 · 4	78.1	35.4 33.5
St. Andrew's	339	2	57.2	145.3	94.3	42.7	:	:	:	:	:
St. Barnabas'	622	က -	57.1	145.1	78.5	35.6		54.5	137.6	65.7	29. 8. 18
st. bartholomews	222	- -	7.70	132.6	68.5	31.1	4	766	140.2	9.77	2.08

TABLE XXXIII.—continued.—Non-Half-Timers.

AVERAGE HEIGHTS AND WEIGHTS OF NON-HALF-TIMERS AT 13 TO 14 YEARS OF AGE.

				MALES	ES.				FEMALES	LES.	
SCHOOL.	Accom- moda- tion	Number exam- mined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilogr'mmes	Number exam- mined	Average height in inches	Average height in centimetres	Average weight in pounds	Average weight in kilogr'mmes
St Gabriel's	194	:	:	:	:	:	_	58.0	147.3	92.0	41.7
St Tames' Shear Brow	280	_	50.0	127.0	59.0	26.8	61	58.2	147.8	6.68	s· 0+
Black-a-Moor	324	:	:	:	:	:	_	56.5	143.5	73.2	33.2
Guide	300	:	:	:	:	:	:	:	:	:	:
St Tohn's	935	9	55.0	139.7	77.6	35.2	<sub>∞</sub>	55.6	141.2	79 · 1	35.9
S+ Insemb's	771	က	53.7	136.4	72.4	32.8	က	53.2	135.1	80.4	36.4
St Inke's	588	:		:	:	:	_	58.0	147.3	82.0	37.2
St Mary's	694	61	54.6	138.7	77.1	34.9	9	56.7	1+4.0	78.7	35.7
St Matthew's	693	:	:	:	:	:	က	59.0	149.8	92.9	42.1
St Michael's	591	-	54.7	138.9	74.0	33.6	61	51.3	. 130 - 3	61.7	58.0
St. Paul's	794	4	54.6	138.7	80.7	36.6	ß	56.4	143.2	74.3	33 - 7
St. Peter's C.F.	637	61	55.3	140.5	77.1	34.9	က	57.3	145.5	9.66	45.1
R.C.	493	1	55.0	139.7	0.89	30.8	_	52.5	133 · 3	59.7	27.1
St. Silas's	829	10	55.7	141.5	77.7	35.2	7	58.0	147.3	85.0	38.5
St. Stephen's	554	61	57.0	144.8	8.92	34.8	+	56.9	144.5	77.6	35.2
St. Thomas's	669	က	56.4	143.2	73.9	33.5	_	51.0	129.5	62.0	28.1
Wensley Fold	435	7	54.6	138.7	70.0	31.7	7	57.4	145.8	9.08	36.5
Whalley Range	793	-	54.5	138.4	78.0	35.4	2	53 · 1	134.9	64.3	29 · 1
Witton Infants	207	:	:	:	:	:	:	:	:	:	:
Averages			55.2	140.2	75.0	34.0		55.7	141.5	76.7	34.8



### TABLE XXXIV.—Half-Timers engaged in Cotton Industry.

12 to 13 years of age.

	MAL	ES.	Fem.	ALES.
	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds.
Standard	53·7 54·0	73·0 72·3	53·9 54·8	74·9 73·1
Result	0·3 above	0.7 below	0.9 above	1.8 below

### 13 to 14 years of age.

FEMALES.

MALES.

			1 10111.	mbbs.
	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds
Standard	55·8 55·5	79·0 76·4	56·5 55·8	84·9 77·0
Result	0·3 below	2.6 below	0·7 below	7.9 below

### Therefore

Males at 12-13 were 0.3 inches above the standard in height.

- " " 0·7 pounds below " " weight.
- " 13-14 were 0·3 inches " " height.
- ", " 2.6 pounds ", ", " weight.

### and

Females at 12-13 were 0.9 inches above the standard in height.

- " 1.8 pounds below " weight.
- " 13–14 were 0·7 inches " " " height.
- " 7.9 pounds " " weight.

### TABLE XXXV.—Half-Timers other than Cotton.

12 to 13 years of age.

### MALES.

### FEMALES.

	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds.
Standard	53·7 54·6	73·0 74·0	53·9 54·2	74·9 71·1
Result	0.9 above	1·0 above	0·3 above	3·8 below

### 13 to 14 years of age.

### MALES.

### FEMALES.

-	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds
Standard Blackburn Schools	55·8 56·9	79·0 83·7	56·5 57·5	84·9 83·6
Result	1·1 above			1.3 below

### Therefore

Males at 12-13 were 0.9 inches above the standard in height.

"	", $1.0$ pounds	,,	,,	,,	weight.
20	13-14 were 1·1 inches	,,	19	,,	height.
	4.7 pounds				weight.

### and

Females at 12-13 were 0.3 inches above the standard in height.

,,	,,	3.8 pounds below	,,	1,	weight.
,,	13-14 were	1.0 inches above	,,	,,	height.
••	••	1.3 pounds below		.,	weight.

### TABLE XXXVI.—Non-Half-Timers.

12 to 13 years of age.

•	Ma	LES.	FEM	ALES.
	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds.
Standard Blackburn Schools	53·7 54·3	73·0 72·4	53·9 54·4	74·9 71·7
Result	0.6 above	0.6 below	0.5 above	3·2 below

### 13 to 14 years of age.

	Mai	ES.	FEMALE	ES.
	Height in inches.	Weight in pounds.	Height in inches.	Weight in pounds.
Standard	55·8 55·2	79·0 75·0	56·5 55·7	84·9 76·7
Result	0.6 below	4·0 below	0.8 below	8·2 below

### Therefore

Males at 12–13	were	0.6	inches	above	the	standard	in	height.

- " " 0.6 pounds below " " weight.
- ", 13-14 were 0.6 inches ", " height.
- $\frac{1}{2}$ ,  $\frac{1}{2}$   $\frac{1$

### and

Females at 12–13 were 0.5 inches above the standard in height.

- ", "  $3\cdot 2$  pounds below ", " weight.
- " 13-14 were 0.8 inches " " height.
- ", "  $8\cdot 2$  pounds ", ", weight.

TABLE XXXVII.

Conditions, Defects, etc., found in the 1,696 Children leaving School.

1	Ear Dis.	Defective.	
	Ext.	Good.	41.769.55.44.47.98.63.13.14.79.43.41.76.99.51.14.17.99.51.14.19.51.
	Eye Dis.	Defective.	0,01 14 101000 14 11 11 11 11 11 11 11 11 11 11 11 11
	Ext.	Good.	63 53 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	& Thr't.	Defective.	+ 3 8 6 1 31 5 31 8 1 3 31 1 1 2 3 9 8 3 1 3 1 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1
	Nose &	Good.	3888 63 + 122 60 83 3 177 8 50 50 51 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	ا	Bad.	17. 17. 17. 17. 17. 17. 17. 17. 17. 17.
	Teeth.	Medium.	27 2 2 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
		Good.	925: 713761561778261299
1	ess.	Bad.	10 - 1 + 2 2 2 2 2 1 1 1 1 2 1 1 1 1 1 1 1 1
	Cleanliness.	Medium.	222 234 25 27 27 27 27 27 27 27 27 27 27 27 27 27
	Cleg	Good.	326973193999999999999999999999999999999999
1	i.	Bad.	: : : : : : : : : : : : : : : : : : :
1	Footgear.	Medium.	ωω : ω4 ω ∞ Ξ : ω ω : : ω + ω ω ω ω ω ω : : ω + ω ω ω ω
	Fo	Good.	3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
ľ		Bad.	: : : : : : : : : : : : : : : : : : :
1	Clothing.	Medium.	119 129 139 14 150 160 170 170 170 170 170 170 170 17
1	ರ	Good.	13 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
1	n.	Bad.	
	utrition.	Medium.	0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8
	Nu	Good.	338 330 330 330 330 330 330 330 330 330
		SCHOOL.	Accrington Road Audley Range All Saints' Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffin Griffin Maudsley Street Moss Street Moss Street Mill Hill Council Norfolk Street Sacred Heart St. Alban's St. Anban's St. Anban's St. Anban's St. Andrew's

133

Conditions, Defects, etc., found in the 1,696 Children leaving School. TABLE XXXVII.—continued.

1 %		133	- 1
Ear Dis.	Defective.		22
Ext.	Good.	: 525 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1674
Eye Dis.	Defective	- i- i400x001 i ixot- i	19
Ext.	Good.	: +654338843484358883275591	1635
& Thr't.	Defective.	#	276
Nose &	Good.	: + + + + + + + + + + + + + + + + + + +	1420
	Bad.	#4054760000#################################	453
Teeth.	Medium.	: 858333552835342°: 038	966
	Good.	0.001 : 0.00 1.00 1.00 1.00 1.00 1.00 1.	247
ss.	Bad.	01-:-:-:-:	113 2
Cleanliness.	Medium.	1 1 1 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2	634 1
Clear	Good.	211 122 8 1 2 2 2 2 2 3 2 4 2 3 2 3 2 3 2 3 2 3 3 3 3	949 6
-	Bad.	21-	53 8
Footgear.	Medium.	0000 :	198
Foc	Good.	113 113 113 113 113 113 113 113 113 113	14451
-	Bad.	:::::::::::::::::::::::::::::::::::::	57 1
Clothing.	.muibəM	222	1072
Clo	Good.	170 170 170 170 170 170 170 170 170 170	567 1
-	Bad.	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	32 5
trition.	Medium.	721 :22825222 : 127 : 228 : 22	400
Nutr	Good.	2713 28 28 28 28 28 28 28 28 28 28 28 28 28	
-	pool		[12
	SCHOOL.	St. Bartholomew's St. Gabriel's St. James', Shear Brow " Bl'k-a-Mr. " Guide St. John's St. Joseph's St. Luke's St. Marty's St. Marty's St. Marthew's St. Michael's St. Michael's St. Paul's St. Peter's C.E. St. Slas's St. Stephen's St. Thomas's Wensley Fold Whalley Range Witton Infants	Totals1264

TABLE XXXVIII.

Conditions, etc., found amongst the 1696 Leavers.

	Good.	Medium.	Bad.
Nutrition	Percentage. 74·5	Percentage. 23.6	Percentage.
Clothing	33.4	63 · 2	3.3
Footgear	85 · 2	11.6	3.1
Cleanliness	56.0	37.3	6.6
Teeth	14.5	58.7	26 · 7

	Good.	Defective.
Nose and Throat	Percentage. 83.7	Percentage.
External Eye Defects	96 · 4	3.5
External Ear Defects (Otorrhœa)	98·7 ·	. 12

Amongst the 1,696 leavers examined, the following defects were found:—

Enlarged Neck Glands	28.0	per cent
Greatly Enlarged Neck Glands	1.0	,,
Enlarged Tonsils	9.0	,,
All Eye Defects	$6 \cdot 5$	,,
Dirty and Sore Heads	$5 \cdot 5$	,,
Tonsils and Adenoids	$5 \cdot 3$	,,
All Ear Defects	$2 \cdot 3$	,,
Anæmia	$2 \cdot 1$	,,
Skin	2.0	,,
Circulatory Diseases	1.8	,,
Speech Defects	$1 \cdot 4$	,,
Adenoids	1.3	,,
Other Conditions of Nose & Throat	0.5	,,
Tubercular Diseases	$0 \cdot 4$	,,
Nervous Diseases	$0 \cdot 3$	, , ,
Developmental Defects	0.3	,,,
Respiratory Diseases	$0 \cdot 1$	,,
Other Diseases	1 · 1	,,

### D. HIGHER GRADE SCHOOL CHILDREN.

In this group, 807 children were examined, including 454 boys and 353 girls. This number includes 138 children examined for the second time.

Tables XXXIX, to XLIV, show the various particulars for these 807 children.

TABLE XXXIX.

## Higher Grade Schools. Non-Half-Timers.

						4 TO 5	4 TO 5 YEARS.				1
7	Accom-			MALES.					FEMALES.		
SCHOOL,	moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mnies	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	:::	:::	:::		: : :	:01 :	38.1	7:96	32.8	14.9
Average for the Schools			:	:				38.1	96.7	32.8	14.9
						5 TO (	6 YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	:∞ Ի	 42.8 41.5	108.7 105.4	43.1	19.5	.:.	42.0	106.6	38·8 41·1	 17.6 18.6
Average for the Schools			42.1	107.0	41.0	18.6		42.5	108.0	39.9	18.1
						6 TO 7	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	-0101	43.7 43.0 42.7	111.0 109.2 108.4	41.2 41.6 45.3	18.7 18.9 20.5	:17:00	+ + 3 · 8 · 8 · 8 · 8 · 8 · 8 · 8 · 8 · 8 ·	 1111.2 108.7	42·1 42·0	19.1
Average for the Schools			43.1	109.5	42.7	19.3		43.3	110.0	42.0	19.0

### TABLE XXXIX.—continued.

## Higher Grade Schools. Non-Half-Timers.

										-	
						7 TO 8	8 YEARS.				
				MALES.					FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average Average height weight in centing metres pounds	Average weight in pounds	Average weight in kilo- gr'mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	3 10 12	45.2 47.2 46.5	114.8 119.9 118.1	43.6 51.8 49.7	19.8 23.5 22.5	 177 8	45.7	 116·0 116·8	47.0	21:3 22:11
Average for the Schools			46.3	117.6	48.4	22.0		45.8	116.4	47.8	21.7
						8 TO 9	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	2 9 2	48.1 48.6 46.8	122.2 123.4 118.9	57.3 54.8 51.0	26.0 24.9 23.1	:E 6	: \$\frac{4}{8} \frac{4}{8} \cdot \frac{4}{8} \cd	123.9 123.2	53.7	24.4
Average for the Schools			47.8	121.5	54.4	24.7		48.6	123.5	54.5	24.7
						9 TO 1	9 TO 10 YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	3 6 15	51.8 50.6 48.3	131 · 6 128 · 5 122 · 7	63.8 60.3 56.3	28.9 27.4 25.5	.:. 16	50.6	128.5 128.7	61.3	27.8 27.0
Average for the Schools			50.2	127.6	60 - 1	27.2		50.6	128.6	60.4	27.4

TABLE XXXIX.—continued.

### Higher Grade Schools. Non-Half-Timers.

						10 TO 11 YEARS.	YEARS.				
				MALES.					FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average Average height height in in centi- inches metres	Average Average weight in kilo-pounds gr'mmes	Average weight in kilo- gr'mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	2 11 25	51.3 51.7 50.7	130.3 131.3 128.7	63.5 63.2 60.6	28.8 28.7 27.5	122	51.3	130.3	61.9	28·1 28·8
Average for the Schools			51.2	130 · 1	62.4	28.3		51.5	130.9	62.7	28.4
						11 TO 12 YEARS.	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	25 32	52.2 54.1 53.6	132.6 137.4 136.1	64.5 71.4 71.4	29.2 32.4 32.4	200	54.0 54.2	137.1	9.69	31·1 31·6
Average for the Schools			53.3	135.4	69.1	31.3		54.1	137.4	69 · 1	1.3
	-					12 TO 13 YEARS.	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	36	55.9	142.0 141.5	75.9	34.4	39	56.0	 142.2 144.0	77.6	35.2
Average for the Schools			55.8	141.7	75.4	34.2		56.3	143.1	77.6	35.2

### TABLE XXXIX.—continued.

Higher Grade Schools. Non-Half-Timers.

						13 TO 14	TO 14 YEARS.				
				MALES.					FEMALES		
SCHOOL	Accom- moda- tion	Number exam- ined	Average height in inches		Average Average height weight in centimetres pounds	Average weight in kilo-gr'mmes	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	1 27 33	56.7 56.7 57.3	144.0 144.0 145.6	78.5 78.7 83.0	35.6 35.7 37.6	30	58.5	148.6	87.4 85.9	39.68
Average for the Schools			56.9	144.5	80.0	36.3		58.4	148.3	9.98	39.2
						14 TO 15 YEARS.	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade	101 713	::82	0.09	152.4	94.7	42.9	:00	6.09	154.7	6.96	43.9
Farish Higher Grade	6/4	16	2.80	147.8	9.98	39.2	∞	60.5	153.6	95.9	43.5
Average for the Schools			59.1	150.1	9.06	41.1		2.09	154.1	96.4	43.7
						15 TO 16	TO 16 YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	: : :	:::	:::	:::	:::	:128	62.0	157.4	105.1	47.7
Average for the Schools				:	•			61.5	156.2	9.86	44.7

TABLE XL.—Higher Grade Schools.

Conditions, Defects, etc., found in the 669 Children Examined.

1	ar Dis	Defective.	•	-	8	C1	9
	Ext. Ear	Good.	13	145	180	325	663
	ye Dis.	Defective.	:	m	4	œ	15
	Nose & Thr't. Ext. Eye Dis.	Good.	13	143	179	319	654
	: Thr't.	Defective.	¢1	7	12	18	39
	Nose &	Good.	11	139	171	309	630
		Bad.	ıo	62	72	1+1	283
	Teeth.	Medium.	œ	65	80	149	299
		Good.	:	22	31	34	87
1	ess.	Bad.	:	:	:	m	8
1	Cleanliness.	Medium.	7	9	13	31	54
١	Cle	Good.	6	140	170	293	612
1	ar.	Bad.	-	:	:	:	-
	Footgear.	Medium.	8	-	61	13	61
١	H	Good.	6	145	181	314	649
	ig.	Bad.	:	:	:	:	:
	Clothing.	Medium.	ın	40	22	93	160
	5	Good.	œ	106	161	234	509
	ou.	Bød.	:	:	:	-	1
١	Nutrition.	Medium.	:	12	34	41	87
	Ź	Good.	13	134	149	285	581
		SCHOOL.	St. Alban's H.G	Public H. G. (Boys') 134	" (Girls') [149	Parish Higher Grade285	Totals581

### TABLE XLI.-HIGHER GRADE SCHOOLS.

### Conditions, etc., found amongst the 669 Children examined.

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.8

Amongst the 669 children examined at the Higher Grade Schools the following defects were found:—

Enlarged Neck Glands	28.5 per cent.
Greatly Enlarged Neck Glands	1.5 ,,
All Eye Defects	5.9 "
Enlarged Tonsils	5.8 "
Anæmia	2.7
Skin Diseases	1.8 "
Circulatory Diseases	1.0 "
Nervous Diseases	1.0 ,,
All Ear Defects	0.8 "
Adenoids	0.6 "
Other Defects	0.4 ,,
Respiratory Diseases	0.1 "
-	

TABLE XLII.—Higher Grade Schools.

CHILDREN EXAMINED FOR THE SECOND TIME.

						7 TO	8 VEARS.				
				MALES.					FEMALES.	ì	
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- incd	Average height in inches	Average Average height in centininches metres	Average weight in pounds	Average weight in kilo- gr'mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	- 9 is	42.5 45.8 46.6	108.0 116.3 118.4	41.5 47.9 50.4	18.8 21.7 22.9	67	 45·1 45·2	114.6 114.8	15.5	20.6 20.7
Average for the Schools			6.11	114.2	9.9+	21.1		45.1	114.7	45.6	20.7
						8 TO 9	9 YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade	101	::6	18.1	6.661	50.7	93.0				:	* * *
Parish Higher Grade	674	9	48.1	122.2	53.5	24.2	:10	47.9	121.7	55.5	25.2
Average for the Schools			48.1	122.2	52.1	23.6		47.9	121.7	55.5	25.2
						10 то 11	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	6 01	51.5 53.7 51.3	130 · 8 136 · 4 130 · 3	62.2	28.5 28.5 28.3 28.3	:87	52.1	132.3	6:19	28.1 28.1
Average for the Schools			52.2	132.5	65.7	29.8		51.8	131.6	61.9	28.1

TABLE XLII.—Higher Grade Schools—Continued.

CHILDREN EXAMINED FOR THE SECOND TIME.

									Ì		
						11 TO 12 YEARS.	YEARS.				
				MALES.				I	FEMALES.		
SCHOOL.	Accom- moda- tion	Number exam- ined	Average height in inches	Average height in centi- metres	Average weight in pounds	Average weight in kilo- gr'mmes	Number exam- ined	Average height in inches	Average Average height in centininches metres	Average weight in pounds	Average weight in kilo- gr mmes
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	T :: 8	50.5	128.2	61.5	27.9	;°1 ;	55.7	141.5	74.7	33.9
Average for the Schools			51.6	131.1	65.0	29.5		55.7	141.5	74.7	33.9
						12 TO 13 YEARS	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	x x s	53.5 53.3 53.5	135.9 135.4 135.9	65.6 68.9 69.8	29.7 31.2 31.6	: ^ ^	56.5	143.5	77.3 80.0	35.0
Average for the Schools			53.4	135.7	68.1	30.9		57.1	145.0	78.6	35.6
						13 TO 14 YEARS.	YEARS.				
				MALES.					FEMALES.		
St. Alban's Higher Grade Public Higher Grade Parish Higher Grade	101 713 674	rc	55.4 56.5 57.9	140.7 143.5 147.1	73.3 82.2 81.4	33.5 37.5 36.9	: > &	58.7	149.1	83.2 93.7	37.7
Average for the Schools			56.6	143.7	78.9	35 · 8		58.9	149.7	88.	40.1

TABLE XLIII.—HIGHER GRADE SCHOOLS.

Conditions, Defects, &c., found in the 138 Children examined for the second time.

	-	ŗ	-		-	1		0	T. 12	1 P	Dart D	1.5
Nutrition. Clothing.		Footgear.		Cleanliness.		Leeth.		Nose & 1	hr t. E	Nose & Inrt. Ext. Eye Dis. Ext. Ear Dis	S. EXT. E	ar Dis.
Bad. Good. Medium. Bad.		Good. Medium.	Good.	Medium.	Good.	Medium.	Bad.	Good.	Defective.	Good.  Defective.	Good.	Defective.
14 7		15 6	. 19	61		15	ıc	19	61	21	61	:
13 10			. 22	:	4		12	23	:	23	23	:
25 3		27 1	. 26	.:	6.1	<u> </u>	15	56	61	.: 87	28	:
45 21		65 1	. 61	: ::	:	26	40	57	6	64 2	65	-
97   41	-	8 8	. 128	10	7	59	72	125	13	136 2	137	-

TABLE XLIV.-HIGHER GRADE SCHOOLS.

# Conditions, etc., found amongst the 138 Children examined for the second time.

	Good.	Medium.	Bad.
Nutrition	Percentage 93·4	Percentage 6·5	Percentage 0.0
Clothing	70.2	29 · 7	0.0
Footgear	94 · 2	5.7	0.0
Cleanliness	92.7	7.2	() • ()
Teeth	5.0	42.7	52 · 1

	Good.	Defective.
Nose and Throat	Percentage 90·5	Percentage 9·4
External Eye Defects	98.5	1 · 4
External Ear Defects (Otorrhœa)	99 · 2	0.7

Amongst the 138 children examined for the Second time at the Higher Grade Schools, the following defects were found:—

Enlarged Neck Glands	$34 \cdot 0$ per cent.
Greatly Enlarged Neck Glands	2.8 ,,
Enlarged Tonsils	7.2 ,,
All Eye Defects	3.6 "
Adenoids	2·1 ,,
Circulatory Diseases	2·1 "
Nervous Diseases	2·1 ,,
All Ear Defects	1 · 4 ,,
Skin Diseases	0.7 ,,
Anæmia	0.7

## E. Examination of Children Referred by the School Attendance Officers,

During the year I made a personal examination of 372 school children referred to me by the School Attendance Officers, as to their fitness or otherwise for school, and wrote certificates for the same. Tables are appended showing an analysis of these children as to numbers and age-periods. Also the results of the examinations have been classified into the following systems:—

- 1.—Diseases of the Skin.
- 2.—Nervous Diseases.
- 3.—Diseases of the Circulatory System.
- 4.—Diseases of the Respiratory System.
- 5.—Tubercular Diseases.
- 6.—Infectious Diseases.
- 7.—Diseases of the Eye.
- 8.—Diseases of the Ear.
- 9.—Urinary Diseases.
- 10.—Other Diseases and Conditions.

A statement has also been given shewing the number of children referred by the School Attendance Officers, whom I have examined on more than one occasion since October, 1903.

It should be clearly understood that these 372 children were not examined in the systematic examinations conducted at the schools, but that they were selected specially by the School Attendance Officers from the absentees.

The percentage of cases of the various diseases calculated upon these 372 children, is, therefore, in no way representative of Blackburn school children considered as a whole

### TABLE XLV.

School Attendance Cases.—Analysis of cases examined by Medical Officer from January 1st to December 31st, 1910.

No. of District	1	2	3	4	5	6	7	8	9	Total
No. of Names entered in book	44	86	45	42	57	27	60	33	41	435
Children examined at the Health Office and Certificates granted	37	65	33	37	51	25	56	32	36	372
Children visited and examined at their own homes and Certificates granted	•••		•••	•••	•••		•••		•••	***
No. of children certified as fit to attend school	2	8	8	2	6	3	8	4	4	45
No. of children certified as unfit to attend school	18	37	14	23	34	15	23	13	19	196
No. of children certified as fit to attend school half the day	4	7	4	4	4	1	8	6	6	44
No. of children to stay away from school for two weeks	2	2	2	1	1		5	3	1	17
No. of children to stay away from school for four weeks	4	5	4	3	2	3	3	1	5	30
No. of children with defective vision fit for Blind School	2				•••	•••	3	•••		5
No. of children with defective vision unfit for Blind School	•••		ļ 	•••	•					
No. of children examined and certified as fit for Deaf and Dumb School					1	, 2		2		5
No. of children examined and certified as unfit for Deaf and Dumb School							1			1
No. of children certified as fit for Regent Street Special School	3	1		3	2	1	2	2	•••	14
No. of children certified as unfit for Regent Street Special School	. 2	5		1	1		1			10

### TABLE XLV.—continued.

	The second second							-		
No. of children certified as fit for Asylum	•••	•••	1					•••	•••	1
No. of children certified as fit for an Industrial School		•••	•••	•••	•••		1		1	2
No. of children certified as unfit for an Industrial School	•••		***	•••				•••	•••	* * *
No. of children certified as fit for Training Ship			•••		•••	•••		1	• • •	3
No. of children sent to school on receipt of Medical Officer's Notice without being presen- ted for examination	1	6	1	1	2		1		2	14
Certificates received from Medical men after re- ceipt of Medical Offi- cer's Notice	3	2	2		4		•••	•••	•••	11
No. of children certified as unfit for Street Trading	•••	•••				•••	1	•••	•••	1

TABLE XLVI.

Age Periods of the 372 Children who had been referred for Medical Examination by the School Attendance Officers.

			I
Age Periods.	Males.	FEMALES.	TOTAL.
4 to 5	•••		***
5 — 6	22	32	54
6 — 7	25	25	50
7 — 8	17	22	39
8 — 9	10	11	21
9 — 10	13	17	30
10 — 11	12	24	36
11 — 12	16	20	36
12 — 13	16	27	43
13 — 14	5	29	34
Not specified	12	17	29
Total	148	224	372

I.—Diseases of the Skin.	
Eczema	14
Tinea	11
Dirty and Sore Heads	4
Scabies	4
Impetigo	3
Alopecia	1
Abscess	1
Erythema	1
21 chemia	_
	39
II.—Nervous Diseases.	00
Mental Deficiency	25
Chorea	20
Epilepsy	7
Neurasthenia	1
Imbecility	1
Acute Anterior Poliomyelitis	1
Other Nervous Diseases	1
Offici Nervous Diseases	J
	56
III.—CIRCULATORY SYSTEM.	30
Mitral Disease	21
Heart Disease	2
Treatt Disease	
	23
IV.—Respiratory System.	20
	42
Bronchitis	42
V.—Tubercular Diseases.	
Doubtful Phthisis	11
Tubercular Adenitis	7
Tubercular Hip	5
Tuberculosis	4
Hydrocephalus	9
Phthisis	3
Tubercular Cervical Caries	2
Tubercular Abscesses	2
Tubercular Caries	1
Tubercular Knee	1
Other Doubtful Cases of Tuberculosis	4
Other Doubtful Cases of Tuberculosis	4

VI.—Infectious Diseases.	
Convalescent Scarlet Fever	2
Doubtful Scarlet Fever	1
	3
VII.—Diseases of the Eye.	
Myopia	6
Keratitis	6
Strabismus	5
Corneal Opacity	5
Blepharitis	5
Blind	3
Corneal Ulcers	3
Ophthalmia	3
Photophobia	2
Lost Eye	1
Optic Neuritis	1
Abscess Eyelid	1
	—
	41
VIII.—Diseases of the Ear.	
Otorrhœa	12
Deaf	4
Deaf and Dumb	.3
	19
IX.—Diseases of the Urinary System.	
Incontinence Urine	1
Phimosis	1
	2
X.—Other Diseases and Conditions.	
Anæmia	21
Malnutrition	15
Rickets	6
Adenoids	5
Gastric Catarrh	4
Rheumatism	3

Ozœna	2
Undescended Testicle	2
Enlarged Tonsils	2
Vermes	2
Primary Menses	2
Prolapsus Ani	1
Albinism	1
Perforated Palate	1
Addison's Disease	1
Fractured Finger	1
Bursa Knee	1
Scoliosis	1
Specific Disease	1
	_
	72
	12

32 children were not suffering from any disease.

The following is a list of the referred cases examined medically on more than one occasion since October, 1903:—

Bronchitis	13
Anæmia	10
Chorea	10
Doubtful Phthisis	7
Mental Deficiency	7
Mitral Disease	6
Otorrhœa	5
Malnutrition	5
Eczema	3
Hydrocephalus	3
Tuberculosis	3
Blepharitis	3
Corneal Opacity	3
Keratitis	2
Strabismus	2
Corneal Ulcers	2
Scabies	2
Tinea	2
Tubercular Adenitis	2
Epilepsy	2
Primary Menses	2
Ozœna	1
Adenoids	1

Undescended Testicle	1
Myopia	1
Optic Neuritis	1
Tubercular Abscess	1
Left Tubercular Hip	1
Tubercular Cervical Caries	1
Gastric Catarrh	1
Addison's Disease	1
Scoliosis	1
Rickets	1
Deaf and Dumb	1
Vermes	1
Dyspepsia	1
Specific Disease	1
Not Stated	7

### F.—Examination of Scholarship Holders.

During the year 1910, I examined eight girls who had gained Scholarships for admission to the High School.

In addition I examined also five "Peel" Foundation Scholarship Holders and one "Henry Harrison" Language Scholarship Holder.

I found that they were all in good health and able to undertake the work in connection with the above-named Scholarships.

Where necessary, I gave advice respecting removal of carious teeth, correct breathing, exercise, etc.

# FURTHER OBSERVATIONS ON THE MEDICAL INSPECTION OF BLACKBURN SCHOOL CHILDREN.

It is not possible to refer as fully as one would wish to all the points which arise as a result of Medical Inspection in this Report, but the following have been selected for special mention.

Dr. Linton has written the two paragraphs on "Nutrition" and "Glandular Enlargements," and I am indebted to him for this contribution to my Report.

### NUTRITION.

In his Annual Report for 1908 (published last year), the Chief Medical Officer of the Board of Education urged School Medical Officers to group the children with respect to nutrition in the classes suggested in the Board's Schedule, namely, good (meaning excellent,) normal, below normal, and bad, stating in as much detail as possible the data on which they classify. Accordingly, during the greater part of last year, the children presented for medical inspection in Blackburn were grouped into four classes, namely, excellent, good (meaning normal), medium, and bad, corresponding to the four classes in the Board's Schedule.

Only three classes are given in the table. This is owing to the fact that during the early part of the year the children were grouped into three instead of four classes, so that under the heading good in the Tables are included Classes I. and II. of the new classification.

It may, however, be stated here, that the number of children sufficiently well nourished to be placed in Class I. hardly amount to 5% of the whole.

It is impossible to define these four classes within hard and fast lines, but broad distinctions may be indicated.

Class I. (Excellent) includes those children with whose nutrition no fault can be found. Their muscles are firm, skin healthy in tone and colour, hair not dry, mucous membranes red, and they have not too much fat; lastly, they are not undersized and are not noticeably below the weight normal to their height.

Class II. (Good) is made up of all those children who shew no marked signs of malnutrition and yet are not up to the standard of Class I. A child in this class may be undersized, or may weigh considerably less than normal for his height, provided that he seems in other respects well nourished; or he may be slightly pale and overgrown and yet not so definitely below the normal as to fall into Class III.

In Class III. (Medium) are included children who are definitely anæmic, or slightly anæmic and at the same time undersized or thin, or without being anæmic are undersized and also shew such signs of malnutrition as dry skin, dry and brittle hair, lack of mental alertness, etc.; and lastly, fat and flabby children.

Class IV. (Bad) comprises children shewing all the signs of malnutrition, including a marked degree of anæmia and lack of flesh.

As has been pointed out again and again, malnutrition is much more commonly due to unsuitability than to insufficiency of food.

As an illustration of the amount of improper feeding which goes on, the results of a small enquiry as to the quality of breakfasts may be mentioned. A number of children of about 6 to 8 years of age were asked one day what they had had for breakfast that morning. These children were not selected for the purpose. They were the children presented on that day at a certain school for medical inspection. The school chosen was of a medium type as regards class, i.e., the children came neither from specially well-to-do nor specially poor homes. Their answers are set out below:—

Tea,	dry bread	2
,,	currant cake	1
,,	teacake	1
,,	muffin	1
,,	two sponge cakes	1
,,	bread and half a banana	1
,,	bread and jam	1
,,	toast and butter	1
,,	biscuits and butter	1
,,	bread and butter	13°
,,	bread and butter and biscuit	1
,,	bread and butter and one banana	1
,,	bread and butter and syrup	1
,,	bread and butter and rhubarb	1
,,	bread and butter and cold soup	1
,,	bread and butter and jelly	1
,,	bread and butter and potted meat	1
,,	bread and butter and cold lamb	1
,,	bread and butter, boiled meat and rice	
"	pudding	1
,,	bread and bacon	1
"	bread and butter and bacon	2
	bread and boiled egg	2
22	bread and boned egg	4

Tea, bread and butter and boiled egg	4
" bread and butter and fried egg	3
" bread and butter, bacon and egg	2
" and coffee, bread and butter, fried egg	1
Coffee, teacake	1
" bread and butter, one banana	1
Cocoa, boiled egg and cake	1
" bread and butter	2
Milk, bread and boiled meat	1
" porridge, milk and sugar	1
Porridge, Milk and Sugar	1
Boiled bread and milk	1
Total	56

One notices about these breakfasts that most of them are very unsuitable and are such as need no preparation—many are, in fact, the remains of the overnight meal. Only two children out of the fifty-six had had porridge, and only two had had milk to drink—forty-seven had had tea. The number of children who come to school having had hardly any breakfast is by no means small. This may arise in part from the unappetising nature of the food provided, but there is no doubt that it is very largely due to another cause, namely, the foul atmosphere in which the great majority of children sleep. It is no uncommon thing for three or four children or one or two children and their parents to sleep in one room with the window entirely closed. Choked up gratings and doors set ajar are regarded as sufficient means of ventilation. In the unusual event of the window being opened, two inches seems to be about the maximum.

The result is that children rise in the morning stupid from the poison which they have been breathing in all night, and without appetite for food or inclination for the heavy morning's work in school.

A further main factor in the causation of malnutrition, to which attention must again be drawn, is the extreme prevalence of untreated dental caries. In round numbers, 40 to 50 per cent. of school children have four or more decayed teeth in their mouths. The evil is especially marked in the case of children of five to seven years of age, whose mouths are commonly full of the loose and septic remains of their first set of teeth. This condition is a double hindrance to nutrition. In the first place, it prevents proper mastication of food, which is therefore not thoroughly digested and

assimilated; and secondly, pus oozing from the gums is swallowed and absorbed into the blood, causing chronic poisoning and anæmia.

A further result of such a foul state of the mouth at this age is that the newly appearing secondary teeth are attacked by the septic material in the mouth and quickly become carious too, thus perpetuating the condition. The ultimate result of neglected decay of the teeth is permanent injury to health and greatly increased susceptibility to disease.

The problem of malnutrition among school children is, of course, a bigger one than is here indicated, and involves such matters as the care and feeding of infants, and the industrial employment of married women, but from the purely educational point of view the lines of attack appear to be (1) the provision of dentistry for school children, and (2) universal and more insistent teaching to girls of the principles of a sound diet, including the food value and economy of different articles of food and drink.

### GLANDULAR ENLARGEMENTS.

Enlargement of the lymphatic glands is a very common condition amongst school children. Of 7,606 children examined in Blackburn during the year 1910, 2,038 or 28 % had moderately enlarged glands, and 210 or nearly 3 % had greatly enlarged glands. If a gland seemed to be about the size of the stone of a victoria plum it was marked as greatly enlarged. All other glands which could be felt without difficulty were marked as moderately enlarged.

The submaxillary glands are more often affected than the cervical glands. This points to dental caries and unclean conditions of the mouth as being the commonest causes of glandular enlargement. Reference has already been made to the need for treatment of dental caries and this chronic inflammation of the lymphatic glands, which constitute the first line of defence against infection, is only another argument in the same direction. In this connection, one thinks particularly of tuberculosis. Lymphatic glands, weakened by chronic inflammation, fall an easy prey to the inevitable tubercle bacillus which is thus allowed to pass through into the system.

There is often no obvious exciting cause for enlarged glands such as bad teeth or verminious head. They seem to be associated in many cases with anæmia and lack of good food and fresh air. These conditions have already been discussed under the heading of "Nutrition."

### DIRTY HEADS.

As in other centres, the work of Medical Inspection has resulted in the discovery of a large number of dirty heads.

It is pleasing to note that many of these have been cleansed.

There are, however, many more children (particularly girls) attending school with dirty heads than there ought to be.

It would be an admirable thing if the custom could become general of causing all girls to come to school with their hair plaited. Such a step would cause them to be much less liable to receive the infection of Pediculi, the girls would look more neat, and they would themselves feel much more comfortable, especially in hot summer weather.

Throughout the year we have adopted a vigorous crusade against dirty heads, and the work of the School Nurse in this respect has been of great value, although this work is unpleasant and often discouraging.

In some instances I have given the parents a clean start by disinfecting the clothing and the interior of the house after the heads and bodies of the affected children have been thoroughly cleansed. This has only been done where the mother's negligence has been realised by herself, and where it seemed probable that she would take more care in future.

Although only few notices were sent to parents respecting the dirty heads of their children this by no means represents the work carried out in this direction. The School Nurse gave many lectures at the schools to girls with dirty heads, and followed up many of these cases at their own homes, and also interviewed the parents concerned.

### EAR DISCHARGE.

A considerable number of cases of discharge from one or both ears have been met with in Blackburn. Some of these have been caused by previous attacks of Measles or Scarlet Fever. Many of these cases resist such treatment as persistent syringing, and some of them might benefit from surgical measures. It is important that these cases should receive treatment because deafness, or even extension of the inflammation and meningitis may result.

It is necessary to exclude these children from school, but their after-treatment in many cases is most unsatisfactory.

I believe that some cases might receive some benefit by regular attendance at a School Clinic where they could be syringed efficiently by a School Nurse.

### DEFECTIVE TEETH.

It seems as if dental caries were on the increase. There is no doubt that this defect is far more prevalent amongst school children than it ought to be. It is comparatively rarely that one finds a child who uses a tooth-brush. Tooth brushes are a valuable aid in preventing the teeth from decaying, but they form only one means of prevention. Regular inspection and treatment by a dentist are also necessary.

Dr. Wheatley, my predecessor here, and now County Medical Officer of Health for Shropshire, has studied this question with great care, and he considers the following to be the all important causes of dental caries:—

- I. First and foremost the feeding during the formative period with carbohydrate food, principally, if not entirely, in a soft and sticky form. (By the formative period is meant that period during which the jaws and teeth are being developed, and the habits of mastication formed.)
- II. The non-inclusion in the diet throughout life of a sufficient amount of food of a tough or cleansing nature.
- III. The wrong order in which foods are eaten, so that the mouth is not left clean and free from food after each meal.
- IV. Too great frequency of meals and also the eating of foods containing sugars and starch at other times than meals, so that the mouth has not a proper opportunity of cleansing itself.

### DEFECTIVE VISION.

A large amount of Defective Vision is still found amongst the school children of Blackburn. I have referred fully to this subject in former Reports. A considerable number of these defects never receive any remedial measures.

During the year ending December 31st, 1910, the eyesight of 3,873 children was tested at various schools in the Borough.

The teachers very willingly co-operated with me in this matter, and I am very greatly indebted to them for their assistance.

Of the 3,873 children examined, 1,819 were boys and 2,054 were girls.

The method adopted for the testing of vision has already been reported upon in my Annual Report to the Education Committee for 1907.

I have tabulated the results of these examinations according to school and sex, and the same will be found on Tables XLVIII. and XLIX. and worked out in percentages.

The number of children whose vision in one or both eyes wa  $\frac{6}{18}$  or worse was 887 or 22.8 per cent. Of these 887 children, 387 were boys and 500 were girls.

Of the 387 boys, 166 were defective in one eye and 221 in both eyes.

Of the 500 girls, 200 were defective in one eye and 300 in both eyes.

The number of children wearing glasses at the time of examination was 80. In 46 of these cases the vision when tested was  $\frac{6}{18}$  or worse and the glasses were practically useless.

39 children were found to be suffering from "squint."

Notices were sent to the parents of the children concerned in all cases requiring attention.

These were afterwards followed up by visits to the homes by the School Nurse.

From the result of these visits, it would appear that a great many of the parents regard the matter very lightly, and in the majority of cases no steps are taken to remedy the defect.

TABLE XLVII.

Analysis of results of the testing of the vision of 3,873
School Children.

	Right	Eye	Left	Eye
	Boys	Girls	Boys	Girls
Normal	<b>67</b> ·0	64.8	65.7	63.0
6 12 ···	16.4	16.1	17.3	17.0
6 18 ···	7.8	8.8	8.4	8.6
6 24 ···	3.7	4.9	3.4	5.7
6 36 ···	2.9	3.5	3.4	3.8
6 or worse	1.8	1.7	1.7	1.7

# TABLE XLVIII.-VISION-BOYS.

worse	L.	6.28 1.2777777777777777777777777777777777777
$\frac{6}{6.0}$ or	R.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
20 to	L.	0 1 10 10 10 10 10 10 10 10 10 10 10 10
9 S S	R.	£1
1-11	i	7.1. 6.3. 1.1. 8.3. 1.2. 1.3. 1.4. 1.0.
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Nor	R.	633 87.77 67.11 67.11 68.44 68.49 69.53 69.5
No.	Exam- ined.	\$5.78 \$4.77
	SCHOOL.	Accrington Road Audley Range All Saints' Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffn Holy Trinity Lower Darwen Council Maudsley Street Mill Hill Council Norfolk Street Parish Higher Grade Park Road Sacred Heart St. Alban's Higher Grade St. Alban's Higher Grade St. Alban's Higher Grade St. Alban's Higher Grade St. Anne's St. Anne's

TABLE X&VIII,-VISION.-BOYS,-Continued.

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	ined.	R.	i.	R.	Ĺ.	R.	Į.	R.	L.	R.	L.	R	Ĺ.
St. Barnabas' St. Gabriel's St. Gabriel's St. James's C.E. " Guide St. Joseph's St. Luke's St. Luke's St. Marthew's St. Matthew's St. Matthew's St. Paul's St. Paul's St. Paul's St. Pater's C.E. St. Pater's C.E. St. Pater's St. Whatley Range Wensley Fold Whalley Range	\$25.0 \tag{6.5}\$ \$2.5 \tag{7.5}\$ \$2.5 7.5	66.0 658.8 82.6 87.5 911.6 77.7 77.7 77.1 77.1 77.1 77.1 77.1	69.6 73.1. 82.6 991.6 991.6 991.6 77.7 77.7 77.3 77.3 77.3 77.3 77.3 77	11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	100.7 120.7 130.1 130.7 13	8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	80. 48.22 80. 10. 10. 10. 10. 10. 10. 10. 10. 10. 1	64.84 6.86.64 6.86	0 4 514510 0 7 ∞ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 : : : : : : : : : : : : : : : : : : :	<u></u>	64 ::::::::::::::::::::::::::::::::::::	7.4 : : : : : : : :

TABLE XLIX.-VISION.-GIRLS.

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SCHOOL.		Accrington Road Audley Range All Saints' Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffin Holy Trinity Lower Darwen Council Mandsley Street Moss Street Mill Hill Council Norfolk Street Parish Higher Grade Parish Higher Grade Parish Higher Grade Park Road Sacred Heart St. Alban's St. Alban's St. Andrew's	St. Amurew s

TABLE XLIX.—VISION.—GIRLS—Continued.

										The same of the sa	The same of the last of		
SCHOOL.	No. Exam-	Norma	mal		9 <u>2</u> 1	1	$\frac{6}{18}$	9 01		9 8 8	9	or or	worse
	ined.	R.	Ľ.	.H	Ľ	R.	Ľ.	R.	r.	R.	Ľ.	Ж.	ij
					(	(							
St. Barnabas'	20	0.99	64.0	18.0	12.0	0 9	0.×3	5.0	0.9	0.4	; ;	0.0	0. 0.
St. Bartholomew's	32	71.8	68.7	9.3	18.7	9.3	:	6.5	6.5		6.5	:	:
St. Gabriel's	30	86.7	86.7	3.3	3.3	3.3	:	:	3.3		9.9	:	:
St. James's C.E.	25	0.08	84.0	4.0	4.0	8.0	0.+	:	4.0		:	0.+	4.0
" Black-a-Moor	13	84.6	61.5	15.3	23.0	:	7.7	:	7.7	:	:	:	:
Guide	24	70.8	62.5	4.1	12.5	16.6	16.6	:	8.3		:	:	:
St. Iohn's	80	50.0	9.91	28.8	28.8	13.3		1.1	5.5		3.3	1.4	9.9
St. Joseph's	90	48.8	45.5	9.97	32.2	11.1	13.3	9.9	3.3	5.51	5.5	<u>:</u>	:
St. Lukė's	13	46.1	53.8	38.4	30.7	:	:	15.4	7.7	:	7.7	:	:
St. Mary's	73	73.8	8.08	12.3	5.4	8.9	5.4	4.1	5.4	1.3	2.7	<u></u>	:
St. Matthew's	75	65.3	56.0	8.0	17.3	9.9	8.0	5.3	9.9	9.3	S: 53	5.3	9.9
St. Michael's	59	58.6	75.8	17.2	3.4	13.8	10.3	10.3	10.3	:	:	:	:
St. Paul's	58	41.3	39.6	13.8	17.2	24.1	24.1	17.2	13.8	3.4	5.1	:	:
St. Peter's C.E.	34	58.8	64.7	17.6	11.7	ىن ∞	ىن ئە	s. :s	\$. \$.	6.7	ic ic	s s	6.5
" R.C.	62	54.8	53.2	30.6	30.6	9.6	12.9	3.5	1.6	1.6	1.6	:	:
St. Silas's	51	82.3	82.3	5.8	ىن ئ	7.8	8.6	:	:	1.9	1.9	1.9	:
St. Stephen's	65	29.2	35.3	38.4	27.7	20.0	26.1	6.1	7.7	9.4	1.5	1.5	1.5
St. Thomas's	81	56.7	54.3	24.7	22.2	11.1	11.1	2.4	3.7	2.4	6.1	5.4	- CI
Wensley Fold	44	50.0	47.7	15.9	18.1	0.6	8.9	18.1	13.6	4.5	11.3	01 01	01 01
Whalley Range	40	62.5	62.5	15.0	15.0	10.0	7.5	2.5	7.5	0.01	1.5 57	:	5.0
Witton Infants	9	50.0	20.0	16.6	16.6	33.3	16.6	:	:	:	16.6	:	:
					_								

Comparison of Heights and Weights of Blackburn Children with Those of Children in Three Other Lancashire Towns, and with Brighton.

I stated in my Report last year that as the work of Medical Inspection progresses, it will be possible to make comparisons upon many points between the children of various towns.

The Lancashire cotton towns will form one useful group for comparison.

At this stage I have given a Table shewing a comparison between the heights and weights of Blackburn school children and the heights and weights of school children in Darwen, Eolton and Burnley.

I have also included the figures for Brighton where conditions are much different.

The figures for these four towns have been taken from the Education Annual Reports for 1910, prepared by the respective School Medical Officers.

Accordingly, the following Tables indicate the position in the above respects of Blackburn school children.

TABLE L.

Average Height in Inches (MALES).

Age.	Blackburn.	Darwen.	Eolton.	Burnley.	Brighton.
3- 4	36.7	37 · 7	35 · 9	36 · 1	36.6
4- 5	38.8	39.0	38.2	38.5	39.5
5- 6	40.5	40.6	39 · 7	40 · 4	40.9
6- 7	42.8	43.0		42.2	40 • 4
7-8	44.8	44.9		45.6	43 · 4
8- 9	46.5	46.3			48.4
9-10	48.2	47.8		•••	49 · 7
10-11	50.6	50.3	•••	•••	54.7
11-12	51.9	52 · 1	•••		50.8
12-13	54.7	54.7	54 · 7	54.8	57.6
13-14	56 · 1	55.6	56.0	55 · 1	55.2

### FEMALES.

Age.	Blackburn.	Darwen.	Bolton.	Burnley.	Brighton.
3- 4	35 · 7	36.0	35.0	36.0	35.9
4- 5	38 · 1	38.3	37.8	38.2	38.6
5- 6	40 · 4	40 · 1	39.6	40.0	41.2
6- 7	42.8	42.4		42.0	43.3
7-8	44.9	44.7		43.8	44.7
8- 9	46 · 1	45.8			47.9
9-10	48 · 1	48.8			49.5
10-11	50.3	49.7			51.7
11-12	51.9	52.6		53.6	51.9
12-13	54.9	55.2	53.9	55 · 5	58.0
13-14	56.8	56.0	54.9	55.9	58.2

TABLE LI.

Average Weight in Pounds (MALES).

Age.	Blackburn.	Darwen.	Bolton.	Burnley.	Brighton.
3- 4	33.9	34.5	32.5	32.7	31.5
4- 5	36.7	36.5	35 · 7	36 · 1	34.8
5- 6	38.7	39 · 1	38.4	38.9	37.0
6- 7	43.2	43 · 4		42.1	39 • 0
7-8	46.2	46.8		45.7	45 • 2
8- 9	50.2	50.8		•••	50.5
9-10	54.8	53 · 1			56 · 7
10-11	61.6	61.0	•••	•••	65 · 3
11-12	66 · 1	66 · 8	•••	•••	63 · 7
12-13	73.5	71.9	70 · 1	74.0	73.8
13-14	78.8	73 · 2	76.5	75.3	75 • 0
					1

### FEMALES.

Age.	Blackburn.	Darwen.	Bolton.	Burnley.	Brighton.
3- 4	31.4	31.8	31.4	32.0	30.9
4- 5	34.9	34.6	34.6	35.0	34.6
5- 6	37.8	37.8	36.9	37.2	37.2
6- 7	41.7	41.0		40.5	40.3
7- 8	45.9	45 • 4		43.7	42 · 1
8- 9	48.0	47.9			50.0
9-10	53 · 2	55.3			64 • 2
10-11	58.0	57.5	•••		65 · 9
11-12	65 · 5	66 · 1		74 · 1	71.2
12-13	73 · 4	73 · 4	70 · 4	74.6	74.3
13-14	80.9	73 · 7	74 · 3	76.5	81 · 4

### MISCELLANEOUS ITEMS.

### BLIND CHILDREN.

During the year I certified 5 children as suitable for admission to a Blind Institution.

At the present time the Education Committee have 14 children at various Blind Schools as follows:—

Fulwood, Preston	7
Hardman Street, Liverpool	2
Brunswick Road, Liverpool	4
Henshaw's Blind Asylum, Manchester	1

### DEAF AND DUMB CHILDREN

During the year I certified 5 children as suitable for admission to a Deaf and Dumb Institution.

At the present time the Education Committee have 12 children at various Deaf and Dumb Schools as follows:—

Royal Cross, Preston	10
Boston Spa	1
Royal Schools, Manchester	1

### REGENT STREET SPECIAL SCHOOL.

This is a school for mentally deficient children.

The number of children admitted to the school for the year ending March 31st, 1911, was 17. There are now 72 children on the register of this school.

During the year 7 children left the school for the following reasons:—

Returned to Elementary schools, where satis-	
factory work is being done	3
Working as a gardener	1
Working in mill (winding)	1
Left district	1
Extreme delicacy	1

At the swimming baths two boys and one girl obtained certificates of proficiency, while most of the other children are making satisfactory progress.

Instead of the Cookery Course which has been followed for two years, Laundry Work has been substituted, and 10 girls receive weekly instruction. Several girls shew considerable ability in this subject.

Four children received prizes at the Children's Plant Growing Exhibition in September, 1910.

The school routine remains practically unchanged.

The Time Table includes various forms of Kindergarten and Manual Work, amongst which are :— Cardboard Modelling, Chair Caning, Basket-work, Rafia-work, String Bag Making, Brushwork, etc.

It is hoped that other forms of higher manual training will be organised during the ensuing year, which will meet the needs of the older boys and girls in the school.

The Head Mistress and other teachers still continue to carry out their work at this school with patience, tact, and enthusiasm.

### PLANT GROWING COMPETITION.

At the end of May, 1910, 2,040 young plants, consisting of fuchsias, geraniums, ferns, etc., were distributed to school children by the Parks Committee of the Blackburn Corporation.

Soil for re-potting was supplied to each competitor at the Corporation Park and at the Queen's Park.

The Eighth Annual Exhibition of Plants grown by school children was held on September 16th and 17th, 1910, in the Corporation Park, and was largely attended by school children and others.

1,830 plants were exhibited in three classes, namely:—

- (a) Plants grown in windows.
- (b) Plants grown in greenhouses.
- (c) Two year plants.

After competent judging, 350 prizes in the form of bags, purses, writing cases, footballs, cricket sets, and other articles were awarded to the successful competitors.

I regard this practical form of encouragement to school children to take a personal, continuous interest in plant life as an admirable measure in their training.

### SWIMMING INSTRUCTION,

Altogether, 3,870 children, including 2,900 boys and 970 girls attended the swimming baths.

There was a total number of attendances of 98,728.

The Baths Committee of the Blackburn Corporation granted facilities for instruction in swimming as in previous years. The Time-Table was drawn up by the Special Committee of Teachers, and the work was supervised by this Committee and their Honorary Secretary.

A very high standard was again attained, not only in the art of swimming, but in the special work of life-saving.

The distances which 1,272 children were able to swim were as follows:—

One breadth	221
One length	572
Quarter-mile	170
Half-mile	131
Mile	178

Free tickets of admission are granted by the Baths Committee to children who swim the mile, the tickets being available only for that season in which the task is accomplished.

### FEEDING OF SCHOOL CHILDREN.

I am indebted to the Director of Education for the following information.

Throughout the year the food has been cooked at the Mayson Street Centre, and has been distributed at the following Feeding Centres:—Accrington Road School, Bent Street Ragged School, Mayson Street Cookery Centre, Mill Hill Salvation Army Barracks, Russell Street Ragged School, Salisbury Street Chapel, St Alban's Cookery Centre, St Anne's Parochial Hall and Whalley Range School. In no case has a room (other than a Cooking Centre) which has been used for teaching purposes, served as a Feeding Centre. The Whalley Range Centre was closed on September 27th, 1910.

The meals have been provided throughout the year both in school term time and in holidays. During holidays, the expenses have been defrayed from voluntary contributions.

The administration expenses, which were defrayed from the rates, amounted to £276 8s. 6d.

The Board of Guardians have paid for the meals of those children whose parents were, at the time, in receipt of relief.

The total number of meals given was 68,182, and of these 28,929 were paid for by the Guardians and the remaining 39,253 from voluntary contributions. In the previous year the corresponding figures were, respectively, 104,040, 32,504, and 71,536.

The following particulars refer only to those children whose meals were paid for from voluntary contributions and not from the Guardians.

Number fed for not more than

1	week	27	children	from	11	families
2	,,	47	,,	,,	19	,,
1	month	247	,,	,,	99	,,
2	months	177	,,	"	69	31
3	,,	89	,,	,,	32	,,
4	,,	46	,,	,,	17	,,
5	,,	41	,,	,,	11	,,
6	,,	27	,,	,,	8	,,
7	,,	15	,,	,,	4	,,
8	,,	22	,,	,,	7	,,
9	,,	11	,,	,,	3	,,
10	,,	19	,,	,,	7	,,
		768			287	

Corresponding figures for the previous year 1,480—689.

The numbers in the respective families were:—two in nine cases, three in 16 cases, four in 34 cases, five in 53 cases, six in 59 cases, seven in 48 cases, eight in 38 cases, nine in 20 cases, ten in nine cases, and eleven in one case.

There was only one worker in 125 families, two in 104, three in 36, four in 14, five in five, and six in three families.

A great number of the 287 families from which children were fed had received out-relief from the Guardians either during part of the year under review, or during previous years.

The occupations of the fathers included:—cotton operatives, 42; other skilled workmen, 62; clerks, 2; labourers, 102; carters and drivers, 11; window cleaners, 4; hawkers, 4; agents, 3; salesmen, 2; store-keepers, 2; butcher, 1; cattle dentist, 1; barman, 1; artist, 1; out porter, 1; rag gatherer, 1; groom, 1

The occupations of the mothers included:—cotton operatives, 54; house work, 80; charwomen, 44; and machinists, 4.

# MORTALITY AMONGST BLACKBURN SCHOOL CHILDREN DURING 1910.

The following Table is of interest as shewing the mortality amongst Blackburn children between the ages of 3 and 13 years from the various causes.

TABLE LII.

Deaths of Children in Blackburn during 1910, between the ages
of 3 and 13 years inclusive.

					F	GE	Рег	RIOD	s.					_
Cause of Death.	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	Males	Females	TOTAL
Zymotic Diseases :					*									
Measles	6					•••	•••			1		2	5	7
Scarlet Fever	3	6	3	2	1	•••		1				5	11	16
Whooping Cough	2					•••		•••		•••			2	2
Diphtheria, Membran- ous Croup	3	6	2	2	2	2	•••	1	•••			8	10	18
Enteric Fever							•••		1	1		1	1	2
Diarrhœa	1							•••				1		1
Tubercular Diseases:														
Tuberculosis of Brain or Meninges			1	2	1			1				2	3	5
Tuberculosis of Lungs			2		•••			1				2	1	3
General Tuberculosis, etc.				•••	2	•••	1	1	•••	•••	1	1	4	5
Nervous Diseases :														
Meningitis		1	3			1				•••		2	3	5
Chorea				1									1	1
Cerebral Tumour	1		•••						•••			1		1
Epilepsy				٠٠,			•••			•••	1	1		1
Paraplegia, Diseases of Spinal Cord		•••		•••	•••	•••	•••		•••	1		1		1
Disease of the Circulatory System:														
Valvular Diseases of the Heart				•••	•••		1		1		1		3	3
Heart Discases unde- fined		1	•••	•••	•••	1	•••	•••		2		2	2	4

TABLE LII. Deaths of Children—(continued.)

	Age Periods.													
Corres on Drown						1101							S	
Cause of Death.	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	Males	Females	Total
Diseases of the Respiratory System: Acute Bronchitis		1		***								1		1
Lobar, Croupous Pneu- monia			1	•••			•••		•••	•••		1	•••	1
Lobular, Broncho- Pneumonia	2	2	1	•••		•••				•••	•••	4	1	5
Pneumonia	3		•••	•••		1		•••	•••	1		2	3	5
Pleurisy and Empyema		1	1	•••	•••							1	1	2
Diseases of the Digestive System: Diseases of Mouth and Annexa			•••	•••	1	1		•••	•••	•••	•••	2	•••	2
Diseases of Stomach		1			•••								1	1
Appendicitis			1			2		•••				2	1	3
Peritonitis						1			•••	•••			1	1
Diseases of the Urinary														
System: Acute Nephritis	1	2	1	1	1				1			4	3	7
Brights Disease		1					•••		•••				1	1
Other Diseases: Epidemic Influenza			1	•••	1	•••		•••	•••			1	1	2
Erysipelas		•••	•••	•••		•••	1	•••					1	1
Rheumatic Fever					2				1	1		2	2	4
Purpura Haemorrhagica				•••	1					•••			1	1
Rickets		1		•••	•••					•••			1	1
Epistaxis		•••		1	•••				•••	•••			1	1
Laryngitis	1	1	•••		•••	•••	1					1	2	3
Croup	2	2	•••	•••		•••			•••	•••		3	1	4
Burns and Scalds	2	1	1	1	•••	•••		1	1		•••		7	7
Drowning		•••	1	1	•••	•••						2		2.
Ill-defined Causes		2	1		1					•••		4	•••	4
Totals	27	29	20	11	13	9	4	6	5	7	3	59	75	134

# THE TREATMENT OF DEFECTS DISCOVERED IN THE MEDICAL INSPECTION OF BLACKBURN SCHOOL CHILDREN.

No direct treatment has been carried out by the Blackburn Education Authority up to the present time.

Each Wednesday afternoon is devoted to interviews at the Health Office with parents of children with defects, and Dr. Linton has supervised this portion of the work.

This is our only substitute for a school clinic in Blackburn at the present time.

The parents to whom notices have been sent stating that their children require treatment, are at the same time encouraged to come and see Dr. Linton at the Health Office on any Wednesday afternoon.

During the year, the relatives or friends of 148 children called at the Health Office on Wednesday afternoons in order to obtain further information as to the defects from which these children had been found to be suffering.

In 90 cases the children themselves were brought to the office. It is very desirable that this should be done, as the defect may then be demonstrated to the parent.

In 97 cases enquiry was made by the mother, in 38 cases by the father, and in the remainder by other relatives or by friends.

The defects from which the children were suffering were as follows:—

Anæmia	33
Defective Sight	27
Enlarged Tonsils	18
Adenoids	17
Bad Teeth (needing immediate treatment)	13
Squint	10
Deafness	8
Blepharitis	7
Otorrhœa	7
Keratitis	3
Heart Disease	2
Phthisis	2

Tonsils and Adenoids	2
Conjunctivitis	1
Ringworm	1
Cleft Palate	1
Bronchial Catarrh	1
Injury to Knee	1
Persistent Headache	1
Hip Disease	1
Myxoedema	1
Ulcer on Neck	1
Chorea	1
Scabies	1

In addition to these, 22 children were sent direct from the school by teachers for the following conditions.

Bad Sight 10 (including nine from one school). Mumps ..... (two excluded). 3 Ringworm ... 2 (one excluded). Chorea ..... 2 (two excluded). Sore Throat ... 2 (one excluded). Sores on Face (one excluded), 1 Impetigo ..... 1 (one excluded). Vomiting ..... 1 (one excluded).

Of the ten sent for bad sight, six were bad enough to require glasses.

A most important part of the work connected with School Medical Inspection consists in visitation of the homes by the School Nurse.

As I have stated previously, so many parents, either through apathy or poverty neglect to obtain treatment for their children.

The School Nurse has, however, been able to persuade parents to obtain suitable treatment for their children in a considerable number of cases.

Another School Nurse will be appointed shortly, and it will then be possible to extend this valuable work.

As shewing that much good may follow home visitation by a School Nurse, I have prepared the following summary of her work during the year 1910, and it is of great interest because it is a record of actual benefit gained.

During the year ending December 31st, 1910, 1,324 notices were sent to parents respecting defects found amongst school children.

These notices comprise 1,427 defects which are tabulated in school order in Table LIII.

1,168 of these cases were visited by the School Nurse during the year.

She made a total number of 2,669 visits during the year 1910. These visits included 164 to the schools and 2,505 to the houses containing children who had been discovered, through medical inspection at the schools, as suffering from various defects, and to whose parents medical advice had been suggested where such had been considered necessary.

As shewing it is very often necessary for the School Nurse to visit the home more than once before any treatment can be obtained, the following statement is of interest:—

775	cases	required	1	visit.
295	,,	,,	2	visits.
85	,,	,,	3	,,
8	,,	,,	4	,,
4	,,	,,	5	,,
1	case	,,	6	,,

In addition to the above, 53 cases of dirty and sore heads, and dirty condition generally, required an average of  $12 \cdot 2$  visits each before the condition was considered satisfactory.

As a result of visits and re-visits to these 1,168 cases, it was ascertained that 668 had received treatment, and 499 did not receive any treatment.

Thus 57.2 per cent. of these cases received treatment.

In addition to the above, 53 cases of dirty and sore heads, etc., were visited and all of them received treatment before returning to school.

Respecting the 669 cases which received treatment, it was ascertained that 395 were treated by a general medical practitioner, 123 received treatment at the Blackburn and East Lancashire Infirmary, 17 visited an optician to obtain glasses or to have their glasses changed, 13 visited a dentist so that attention might be paid to their teeth, and 121 received some form of home treatment, such as extra nourishment in cases of anæmia, and ointment from chemists in certain cases of skin trouble,

Respecting the 499 cases which did not receive any treatment in spite of repeated visitation by the School Nurse, she was informed that poverty was the cause in 70 instances, and she was of opinion that apathy and neglect on the part of the parents was the cause of non-treatment in 91 cases. In 26 cases the parents stated that the child had left school and they did not intend to obtain any treatment. In 98 cases the parents attended at the Health Office for advice.

In 214 cases the School Nurse could not obtain any definite cause of non-treatment, some parents having removed and others being away from home.

It will now be of interest if I record further details respecting the measures taken by parents in certain defects which had been found.

Enlarged Tonsils.—175 children suffering from enlarged tonsils were visited at their own homes by the Nurse, i.e., in following up notices which had previously been sent to the parents concerning their children's condition. Of these 175 cases, 91 received treatment and 84 did not receive treatment. Of the 84 cases which did not receive treatment, the cause appeared to be poverty in 5 instances, apathy and neglect in 26 instances, children having gone full time in 2 instances, and in 36 instances no definite cause was ascertained. The parents of 15 children attended the Health Office for advice. 12 children were operated upon at home and 31 at the Infirmary.

Tonsils and Adenoids.—12 cases of tonsils and adenoids were visited at home by the Nurse. In 9 instances treatment was obtained and in 3 instances there was no treatment. The cause of non-treatment in two of the three instances appeared to be neglect, and in one instance there was no cause ascertained. 6 children were operated upon at the Infirmary and one child was operated upon at home.

Adenoids.—120 cases of adenoids were visited at home by the Nurse. In 76 instances treatment was obtained and in 44 instances there was no treatment. The cause of non-treatment in these 44 instances appeared to be poverty in 3 instances, apathy and neglect in 6 instances, and in 22 instances no cause was ascertained. 13 parents attended the Health Office for advice. Fifteen children were operated upon at the Infirmary.

Defective Vision.—163 cases were visited at their homes by the School Nurse. In 54 cases treatment was obtained and in 109 cases no treatment was obtained. The cause of non-treatment in 31 instances appeared to be poverty, in 20 instances apathy and neglect, in 21 instances the children had left school, and in 30 instances no cause was ascertained. 7 parents attended the Health Office for advice.

External Eye Diseases.—160 cases were visited at their homes by the School Nurse. In 101 instances treatment was obtained and in 59 instances no treatment was obtained. The cause of non-treatment appeared to be poverty in 14 instances, apathy and neglect in 8 instances, child left school in one instance, and in 23 instances no cause was ascertained. Thirteen parents attended the Health Office for advice.

Diseases of the Ear.—118 cases were visited at their homes by the School Nurse. In 77 instances treatment was obtained, and in 41 instances no treatment was obtained. The cause of non-treatment appeared to be poverty in three instances, apathy and neglect in six instances, and no cause was ascertained in 19 instances. 13 parents attended the Health Office for advice.

Anæmia.—157 cases were visited at their homes by the School Nurse. In 110 instances treatment was obtained, and in 47 instances no treatment was obtained. The cause of non-treatment appeared to be poverty in three instances, apathy and neglect in six instances, no cause was ascertained in 24 instances, and 14 parents attended the Health Office for advice.

Carious Teeth.—119 cases were visited at their own homes by the School Nurse. In 45 instances treatment was obtained, and in 74 instances no treatment was obtained. The cause of non-treatment appeared to be poverty in eight instances, apathy and neglect in 13 instances, two children had left school, and in 46 instances no cause was ascertained. Five parents attended the Health Office for advice.

Skin Diseases.—55 cases were visited at their own homes by the School Nurse. Treatment was obtained in 50 instances and no treatment was obtained in five instances. The cause of non-treatment could not be ascertained.

Dirty Heads, etc.—53 very bad cases of dirty and sore heads and dirty conditions generally, were visited at their own homes by the School Nurse. In all the instances these conditions were

remedied. She spent a considerable time in these houses. In all, 648 visits were paid to these cases.

Respiratory Diseases.—34 cases were visited at their own homes by the School Nurse. In 21 instances treatment was obtained, and in 13 instances no treatment was obtained. The cause of non-treatment appeared to be poverty in one instance, and no cause was ascertained in five instances. Seven parents attended the Health Office for advice.

Circulatory Diseases.—33 cases were visited at home by the School Nurse. Treatment was obtained in 26 instances, and no treatment was obtained in seven instances. The cause of non-treatment appeared to be apathy and neglect in two instances, and no cause was ascertained in two instances. Three parents attended the Health Office for advice.

Other Diseases.—22 cases were visited at home by the School Nurse. Treatment was obtained in nine instances, and no treatment was obtained in 13 instances. The cause of non-treatment appeared to be poverty in two cases, apathy and neglect in two cases, and no cause was ascertained in one instance. Eight parents attended the Health Office for advice.

TABLE LIII.
Shewing defects found for which notices were sent to parents.

Others.	
Dirty Heads.	
Teeth.	ευ-4440-ε» β :40401-ε0 :I :«0
Anæmia	-010140C0401044000100 :0000 :04
Respira- tory Diseases	-    40 -    0   0 -        -0  -  0 -
Circula- tory Diseases	in :
Skin.	[01-0]
Ear.	uauuua‱4.e i.e iuuuuuuenuu ia iuu
Eye Defects	0.0.0.0.177201.881 :0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
Adenoids	90 : 90 10 : 10 0 : 10 : 10 : 10 : 10 :
Tonsils and Adenoids	-                   -   -   -           -
Tonsils.	400 : 0000 0 : 4400 : 00
SCHOOL.	Accrington Road Audley Range All Saints Bank Top Cedar Street Christ Church Emmanuel Furthergate Four Lanes End Griffin Holy Trinity Lower Darwen Council Maudsley Street Mill Hill Council Norfolk Street Parish Higher Grade Park Road Sacred Heart St. Alban's St. Alban's St. Alban's St. Anne's St. Anne's

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TABLE LIII.—Continued. Shewing defects found for which notices were sent to parents.

Others.	: :- :01 :00 - : : : :01 : :- : :	27
Dirty Heads.	:-:::::::::::::::::::::::::::::::::::	7
Teeth.	ටග :ගස :ගගලා + සුඋස + සුවා සා	311
Anæmia		175
Respira- tory Diseases	[m	36
Circula- tory Diseases	-    -    -0    000  -0	. 37
Skin.	01-1111-11-0 100 111000	48
Ear.	iω i-ω iνα-ωσιοσωωσισ i	121
Eye Defects	£0042411501100000000000000000000000000000	353
Adenoids	ыы : : i i i i i i i i	125
Tonsils and Adenoids		16
Tonsils.	40 ; ; \$\oldsymbol{\ol	216
SCHOOL.	St. Barnabas' St. Bartholomew's St. Gabriel's St. James's C.E. " Guide St. John's St. Joseph's St. Joseph's St. Luke's St. Mary's St. Marthew's St. Marthew's St. Matchael's St. Peter's C.E. St. Whatley Fold. Whalley Range	Total

### CONCLUSION.

It will be therefore obvious that in the year under review a considerable amount of medico-educational work has been carried out in Blackburn.

It is equally clear that much more extended work is necessary in order to ensure that the defects found amongst the school children shall be remedied.

This is the only logical practical sequence to Medical Inspection, and when this can be ensured, we shall then be on the high way towards the achievement of an improved local and national physique.